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Outlook Brighter, Price Structures Stronger, As Industry Prepares for Federal Supervision

By ANDREW M. ROWLEY

THERE is a distinctly better feeling regarding the outlook for the petroleum industry. Consumption is being maintained at a higher rate than many had anticipated and the belief is growing the industry has an opportunity to sell a greater quantity of its products during the remainder of the motoring season this year than ever before. The price structures are strong, the improvement in gasoline quotations being especially welcome to refiners who have been taking losses on all sales made.

The demand for crude oil has caused surprise in view of the large daily production. Despite the fact the East Texas area never has curtailed to within its allowable with overproduction there averaging more than 200,000 barrels daily, companies are still soliciting and making connections and the scramble for permits to produce "back allowables" shows there is a ready market for all the output. Refiners purchasing in three flush areas in Kansas have indicated they will buy 100 per cent of the production of these fields if the producers will operate their wells to the limit. The increases in prices in Pennsylvania and California, effective this week, indicate the trend of the crude oil market.

With codes for the producing and refining and marketing branches of the industry formulated and approved by representatives of the different associations, every effort is being made to get hearings held on the codes and make the Industrial Recovery Act effective for the petroleum industry as soon as possible. It is hoped hearings will be held in Washington by July 15th. Other industries are speeding up production with a view of accumulating stocks before Federal supervision becomes effective. That may be what is happening in the oil business. However, the fact remains prices should be advanced as rapidly as is consistent so that a minimum which will assure profitable operations be reached before the Federal supervisor takes charge of the oil business.

Every effort should be devoted at this time to bring gasoline prices up to a point where operations will show a profit. The industry has been conducting its business far too long at a loss. It is a tragedy to pay a dealer to accept your gasoline for nothing, but that is exactly what has been done. The business has a great opportunity now to make a profit with consumption increasing. Better prices are absolutely necessary.

Crude Oil Production in the United States

Estimated daily average production for the week ending June 24, and a comparison with previous week and one year ago, follows:

	June 24	June 17	June 25, 1932
Oklahoma—			
Oklahoma City	239,745	120,620	97,865
Seminole-St. Louis	119,470	99,645	114,320
Remainder of State	197,050	186,715	214,250
Total Oklahoma	556,265	406,980	426,435
East Texas—			
Lathrop	313,845	370,250	125,046
Kilgore	230,650	273,115	102,655
Joiner	211,760	264,005	104,111
Total East Texas	756,255	907,370	331,812
West Texas	156,905	156,355	178,962
North Central Texas	66,296	64,938	74,794
Texas Panhandle	42,889	42,562	55,836
East Central Texas	58,592	58,443	57,348
Gulf Coast—Texas	175,255	178,415	111,829
Southwest Texas	53,848	53,495	57,503
Total State of Texas	1,310,040	1,461,578	868,174
Kansas	110,620	105,115	98,235
North Louisiana	24,490	25,185	29,835
Gulf Coast—Louisiana	40,510	40,500	31,904
Arkansas	30,305	30,320	34,025
Eastern Fields	110,000	108,000	121,000
Rocky Mountain area	73,790	75,180	80,273
California—			
Santa Fe Springs	54,000	54,500	56,750
Long Beach	73,750	74,500	69,000
Playa Del Rey	11,500	11,500	15,000
Elwood	13,500	13,750	14,000
Kettleman Hills	62,500	59,750	58,950
Remainder of State	266,750	266,000	246,300
Total California	482,000	480,000	460,000
Total United States	2,738,020	2,732,867	2,149,881

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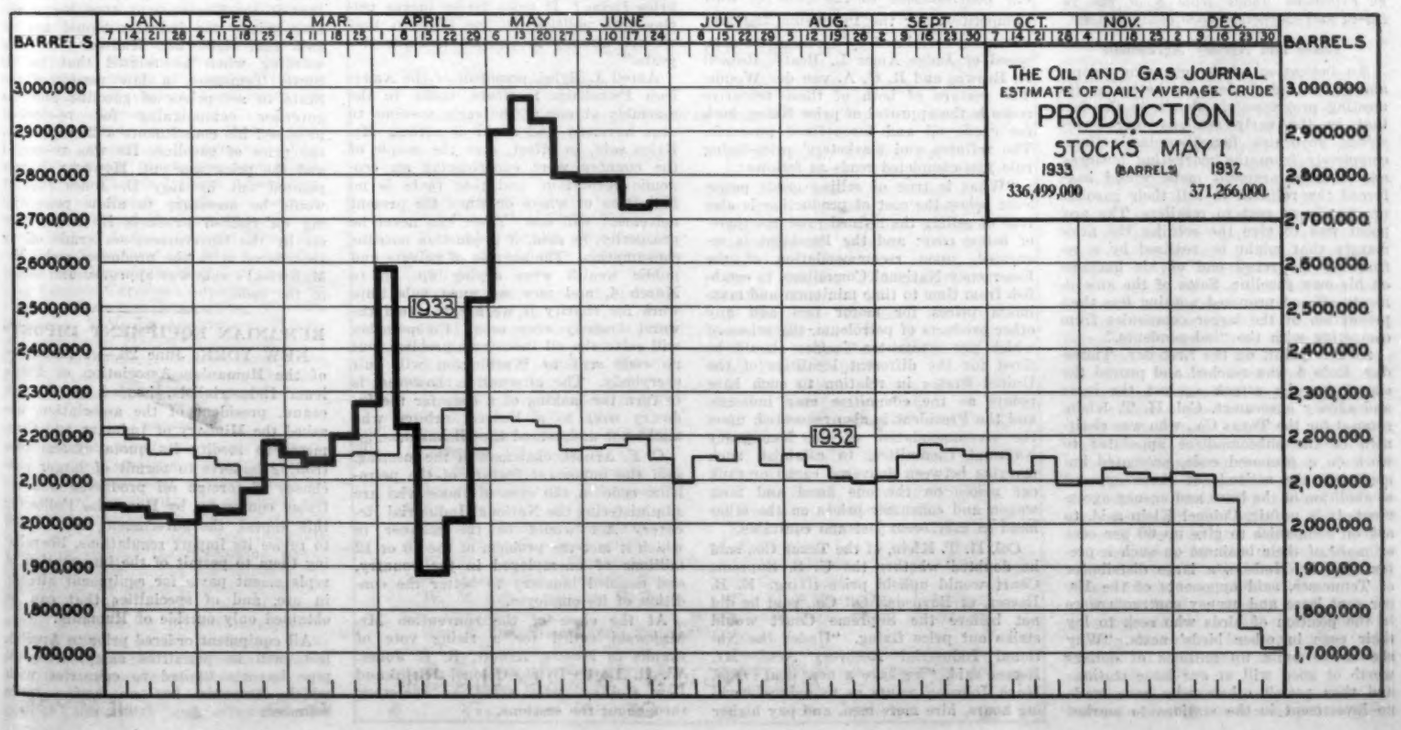


Marketers at Chicago Unanimous for New Code; Alternative Rules on Lease and Agency

By ROBERT C. CONINE
Chicago Bureau, The Oil and Gas Journal

CHICAGO, June 24.—That refiners and marketers were able to record a unanimous vote to support a comprehensive code involving their business and hedging it with penal teeth, as they did today at the completion of their part of the Code of Fair Competition for the petroleum industry, was classed as the most amazing event in a long series of unusual happenings in the industry by C. E. Arnott, president of Socony-Vacuum Oil Corp., who was chairman of the convention. Mr. Arnott said this culmination of three days and nights of intensive discussion would prove of great encouragement to the industry, and might mark a new era of kindlier understanding and progress.

Roy B. Jones, president of Panhandle Refining Co., pointed out that the extent to which the participants exerted themselves to banish suspicion and "try to see the other fellow's side" could be appreciated when it is realized that while crude oil producers have met on numerous occasions and have come to know each other, the refiners and marketers gathered at the code conference were having their first dealings together.

It is possible that one topic alone prevented the conference from finishing its business on the first night. However, it may be that the controversy over this point—the lease and agency agreement—reassured the opposing interests as to the motivating forces operating on each side, and so made it possible for all to make necessary concessions, even in the matter of acceding to a dual presentation of two irreconcilable points of view as expressed under Rule 8 of the refiners and marketers code contribution.

Lease and Agency Agreement

An indication of the changing temper among the independent marketers as the meeting progressed is shown in the fact that in the early sessions there were strong advocates for divorcing refiners completely from the marketing business, and another proposal made would have forced the refiners to sell their gasoline practically at cost to retailers. The proposal was to give the retailer the same margin that might be realized by a refiner at the retail end of his business on his own gasoline. Some of the amendments offered proposed nothing less than prevention of the larger companies from competing with the "independents."

At this point, on the first day, Thursday, Rule 4 was reached and proved the signal for the attack against the lease and agency agreement. Col. H. T. Klein, counsel for the Texas Co., who was chairman of the subcommittee appointed to work on a proposed code, presented immediately the attitude of those opposed to abolition of the lease and agency agreement. It is unfair, Colonel Klein said, to ask oil companies to give up 60 per cent or more of their business on such a pretext. W. D. Hudson, a large distributor of Tennessee, said opponents of the 100 per cent lease and agency contracts were in the position of birds who seek to lay their eggs in other birds' nests. "Why should we build up millions of dollars worth of good will at our lease stations and then permit others who have made no investment in the stations to market their products at those stations?" Mr. Hudson asked. B. L. Majewski, vice president of Deep Rock Oil Corp., then stated what proved to be a fact, that is, that those assembled could accept practically all of the remainder of the proposed code, but that there would be a fight to a finish on the lease and agency agreement.

Russell Williams, secretary of the Indiana Petroleum Association, offered the following amendment: The form of lease and agency contracts now in use in the Central states, extending preferential margins (either in the form of flat amounts or per gallon rebates) to retail dealers under the guise of rentals, places an unfair and unjust restraint upon the business of the retailer, is unfair to the marketers of petroleum products other than gasoline, is uneconomic, unsound and shall be eliminated upon the expiration of existing agreements.

No rentals shall be paid for service stations, except for company operation on the same basis as fee owned stations and then only when leases are for a period of at least five years and are noncancelable. As may be noted in the text of the code, no agreement was reached between the opposing elements.

Rule 7, as originally stated, permitted sale of refined petroleum products below cost to meet competition. This was changed to prohibit sale below cost, plus reasonable expenses in cost of marketing, fixed taxes, inspection fees, and a reasonable profit to cover wages for management. This was proposed by W. D. Hudson.

Carl Beroth, president of Acme Petroleum Co. of Chicago and Kansas City, proposed the amendment to Rule 16 which is stated in the second paragraph. Rules 17 and 18 were incorporated with Rule 15 which covers the posting of prices, provides that all previously executed and then existing contracts regarding price will be available for inspection upon the direct request of any competitor, and which prohibits abnormal deliveries in anticipation of price advance and acceptances of orders for subsequent deliveries at prices effective before advances. In connection with the original Rule 17, covering coupon books, E. E. Hadlick, president of the Northwest Petroleum Association, urged the elimination of coupon books altogether.

Original Rules Nos. 25 and 27 were killed. The first related to permitting any two or more refiners, distributors, jobbers, wholesalers or retailers to enter into agreements establishing joint sales or purchasing agencies, for consolidating places of business, and for the purpose of agreeing upon forms of contract, schedules of quantity discounts, differentials between prices applicable to different methods of delivery, amounts and terms of credit or prices at which petroleum or its products may be sold for any method of delivery. Rule 27 prohibited naming a top price on gasoline and naphtha delivered over a period, and permitted a fixed price on kerosene and light distillate.

Barney L. Majewski proposed the rule covering price fixing. Paul Blazer urged that price fixing be passed over fearing that if the Government once began setting prices, the industry would not regain that right. Mr. Hudson sounded a warning when he related that in his State, Tennessee, a law permitted the State to set prices of gasoline and the governor campaigning for re-election promised his constituents a 2-cent cut in the price of gasoline. He was re-elected and the price was cut. However, it was pointed out by Roy B. Jones that it would be necessary to allow price fixing on refined products if prices were set by the Government on crude oil in accordance with the producers code. Mr. Majewski's rule was approved and added to the code.

Situation on Oil Code as It Now Stands

The producing division adopted a code on production at Chicago, June 17.

The refining and marketing division adopted a code on merchandising, June 24.

A committee of three, representing both divisions, has correlated these two codes.

The executive committee of the American Petroleum Institute will meet in New York Wednesday and the board of directors Thursday to consider the code which it is expected will be approved as it stands.

It is proposed to have the entire code ready for submission to President Roosevelt by July 5 or 6 and the industry hopes that hearings will be called at Washington during the week of July 10.

Producing and Marketing Codes Are Now Being Correlated by Committee

CHICAGO, June 24.—The crude oil producers' and the refiners and marketers' contributions to the Code of Fair Competition for the Petroleum Industry are being correlated by a committee composed of Judge Amos L. Beaty, Russell B. Brown, and R. G. A. van der Woude. The feature of both of these tentative codes is the approval of price fixing, both for crude oil and for refined products. The refiners and marketers' price-fixing rule just completed reads as follows:

"What is true of selling crude petroleum below the cost of production is also true of selling the refined products thereof below cost; and the President is requested, upon recommendation of the Emergency National Committee, to establish from time to time minimum and maximum prices for motor fuel and any other products of petroleum, the prices of which the committee decides should be fixed for the different localities of the United States in relation to such base points as the committee may indicate, and the President is also requested, upon the recommendation of the Emergency National Committee, to establish such margins between delivered cargo or tank car prices on the one hand and tank wagon and consumer prices on the other hand as may seem just and equitable."

Col. H. T. Klein, of the Texas Co., said he doubted whether the U. S. Supreme Court would uphold price fixing. E. B. Reeser, of Barnsdall Oil Co., said he did not believe the Supreme Court would strike out price fixing. "Under the National Industrial Recovery Act," Mr. Reeser said, "we have a new deal. Gen. Hugh Johnson wants us to reduce working hours, hire more men, and pay higher wages, and we cannot do this without higher prices. If the prohibition on credit extensions in the code get by, why not price fixing? If price fixing means getting into politics, let me tell you that we are already in politics, and for two years."

Axtell J. Byles, president of the American Petroleum Institute, spoke to the assembly at one of the early sessions to urge harmony and speed of action. Mr. Byles said, in effect, that the people of the country were experiencing an economic revolution, and that there is no indication of where or when the present movement will end. There can never be prosperity, he said, if production outruns consumption. The sources of private and public wealth were drying up, up to March 4, and now we must substitute work for charity if we are to avoid the worst tragedy ever seen. Co-operation will solve the oil industry's problem, but no code sent to Washington will suit everybody. The alternative, however, is to turn the making of a code for the industry over to a Federal arbiter who might not understand the oil business.

C. E. Arnott, chairman of the meeting, said the important feature of the petroleum code in the eyes of those who are administering the National Industrial Recovery Act would be the manner in which it met the problem of the 10 or 12 millions of unemployed in the country, and enabled industry to better the condition of its employes.

At the close of the convention Mr. Majewski called for a rising vote of thanks to Messrs. Arnott, R. L. Jones, W. R. Boyd, Byles, Colonel Klein and Lew Collins, who acted as secretary throughout the sessions.

RUMANIAN EQUIPMENT IMPORTS

NEW YORK, June 26.—A committee of the Rumanian Association of Petroleum Industrialists, headed by C. Osiceanu, president of the association, has asked the Ministry of Industry and Commerce to modify its quota system controlling imports to permit of larger purchases of foreign oil producing and refining equipment by Rumania. Following this appeal, the government has decided to revise its import regulations, liberalizing them to permit of the importation of replacement parts for equipment already in use, and of specialties that can be obtained only outside of Rumania.

All equipment ordered prior to April 1, last, will be permitted entry, with all pipe imports limited to countries with which Rumania has an active trade balance.

Complete Revised Text of Oil Marketing Code Adopted by the Conference at Chicago

Code of fair competition for the petroleum industry, refining and marketing divisions:

The committees of the following associations assembled in conference in Chicago on June 23, 1933, recommend to their respective associations the filing at Washington of the following code relating to refining and marketing:

American Petroleum Institute, Buffalo Civic League Gasoline Association, Burning Oil Distributors Association of Chicago, California Natural Gasoline Association, Chicago Public Garage Operators Association, California Oil and Gas Association, Chicago Service Station Operators Association, Colorado Jobbers Association, Connecticut Valley Independent Marketers Association, Dade County Florida Dealers Association, Detroit Lubricating Oil Men's Association, Dixie Distributors of Nine States, Eastern Independent Oil Marketers Association.

Essex County Oil Dealers Association, Furnace Oil Distributors of St. Louis, Georgia Independent Oil Men's Association, Illinois Petroleum Marketers Association, Iowa Petroleum Association, Independent Oil Dealers Association of the Carolinas, Independent Oil Dealers Association of Monroe County, New York, Independent Oil Dealers Association of New Jersey, Independent Oil Men's Association of New England, Independent Petroleum Association of America, Independent Trackage Association of America, Independent Trackside Association of Chicago, Independent Wholesalers Association of Philadelphia, Indiana Petroleum Association, Kansas Oil Men's Association.

The Kendoilers of Bradford, Pa., Kentucky Petroleum Marketers Association, Louisiana-Arkansas Refiners Association, Lubricating Oil Wholesalers Association of Chicago, Massachusetts Retail Association, Merchants and Manufacturers Association of Washington, D. C., Service Station Division, Michigan Independent Gasoline Dealers Association, Michigan Oil Men's Association, Missouri Oil Men's Association, Motor Equipment Wholesalers Association of Chicago, National Independent Oil Association of Philadelphia, National Petroleum Association, Pennsylvania Refining Division, Natural Gasoline Association of America, Nebraska Petroleum Marketers, New Jersey Oil Trades Association.

Northwest Petroleum Association, Ohio Petroleum Marketers Association, Oklahoma Petroleum Marketers Association, Palm Beach Florida Dealers Association, Pennsylvania Grade Crude Oil Association, Rhode Island Marketers Association, South Dakota Independent Oil Men's Association, Tennessee Oil Men's Association, Texas Petroleum Marketers Association, Virginia-Carolinas Association, West Virginia Marketers Association, Western Petroleum Refiners Association, Wholesale Petroleum Marketers Association of Chicago, Wisconsin Petroleum Association and Northeastern Pennsylvania Gasoline Retail Dealers Association.

Purpose

In order to eliminate unfair competition in the petroleum industry, to insure the conservation of the petroleum resources of the country, to eliminate unfair trade practices, to increase employment, to establish fair and adequate wages, to enlarge the purchasing power of persons related to this industry, to improve the standards of labor, to protect the consuming public from excessive prices, to avoid the premature abandonment of wells of settled production, to so restore the American petroleum industry that it may promote the general and common prosperity of the American people, and to accomplish and effectuate the policies set forth in the National Industrial Recovery Act, this code of fair competition governing the petroleum industry is adopted.

Labor

During the depression the petroleum industry has maintained a relatively high ratio of employment. To a large extent it has pursued the "share-the-work" policy and has maintained a relatively high schedule of wages. Existing wage schedules should not be reduced, but both employment and wages should be increased as soon as business conditions permit.

Selection of Chairman for Committee Next Big Step

Many oil men are being mentioned for the position of chairman of the Emergency National Committee, comprised of 26 representatives of the producing branch of the industry and 28 representatives of the refining and marketing branches. The chairman need not be chosen from the membership of the committee as now constituted, hence considerable speculation exists as to the ultimate choice of the committee.

It has been pointed out that it would hardly be proper to pay a large salary for the position owing to the fact Gen. Hugh Johnson, in charge of operation of the Industrial Recovery Act, receives comparatively small remuneration.

It has been suggested that W. R. Boyd, Jr., Executive Vice President of the American Petroleum Institute, would make a good chairman of the committee and that he might combine this work with his duties at the institute. Mr. Boyd has the necessary ability and tact and his name will be considered when the time comes to select a chairman of the committee. Others mentioned include Wirt Franklin, president of the Independent Petroleum Association of America and W. N. Davis, vice president, Phillips Petroleum Co.

Members of the Emergency National Committee are: Producing:

W. L. Ainsworth, Wichita, Kans.
C. B. Ames, Texas Co., New York, N. Y.
Neal Anderson, Long Beach, Calif.
William Bell, Robinson, Ill.
Frank Coates, Henry L. Doherty & Co., New York, N. Y.
J. R. Crawford, Shreveport, La.
O. D. Donnell, Ohio Oil Co., Findlay, Ohio.
J. Frank Drake, Gulf Oil Corp., Pittsburgh, Pa.
A. E. Faine, New Straitsville, Ohio.
Wirt Franklin, Oklahoma City, Okla.
George A. Hill, Houston Oil Co., Houston, Tex.
William F. Humphrey, Tide Water Associated Oil Co., San Francisco, Calif.
H. L. Hunt, Tyler, Tex.
A. Jacobsen, Amerada Petroleum Corp., St. Louis, Mo.
John Kilgore, Wichita Falls, Tex.
K. R. Kingsbury, Standard Oil Co. of California, San Francisco, Calif.
Ralph Lloyd, Oil Producers Sales Agency, Los Angeles, Calif.
J. Howard Pew, Sun Oil Co., Philadelphia, Pa.
Frank Phillips, Phillips Petroleum Co., Bartlesville, Okla.
Clarence B. Richardson, Cheyenne, Wyo.
C. F. Roeser, Fort Worth, Tex.
H. F. Sinclair, Consolidated Oil Corp., New York, N. Y.
W. C. Teagle, Standard Oil Co. (New Jersey), New York, N. Y.
J. C. Van Eck, Shell Union Oil Corp., New York, N. Y.
W. W. Warner, Nowata, Okla.
Ralph T. Zook, Bradford, Pa.

Members selected to represent Marketing, Refining and Natural Gasoline Branches, follow:

C. E. Arnott, Socony-Vacuum Corp., New York, N. Y.
T. H. Barton, Lion Oil & Refining Co., El Dorado, Ark.
Howard Bennette, Western Petroleum Refiners Association, Tulsa, Okla.
Paul Blazer, Ashland Refining Co., Ashland, Ky.
H. M. Dawes, Pure Oil Co., Chicago, Ill.
A. L. Derby, Derby Oil Co., Wichita, Kans.
Jacob France, Mid-Continent Petroleum Corp., Tulsa, Okla.
Tom Glasgow, Virginia-Carolinas Association, Charlotte, N. C.
E. E. Hadlick, Northwest Petroleum Association, Minneapolis, Minn.
W. T. Holliday, Standard Oil Co. of Ohio, Cleveland, Ohio.
W. D. Hudson, Tennessee Oil Men's Association, Nashville, Tenn.
W. M. Irish, Atlantic Refining Co., Philadelphia, Pa.
Roy B. Jones, Panhandle Refining Co., Wichita Falls, Tex.
H. E. Koch, Buffalo Civic Defense League, Buffalo, N. Y.
H. A. Logan, Warren, Pa.
B. L. Majewski, Illinois Petroleum Marketers Association, c/o Deep Rock Oil Corp., Chicago, Ill.
Ray E. Miller, Natural Gasoline Association of America, Tulsa, Okla.
D. J. Moran, Continental Oil Co., New York, N. Y.
E. B. Reeser, Barnsdall Oil Co., Tulsa, Okla.
W. J. Reid, Hancock Oil Co., Long Beach, Calif.
F. H. Rolapp, Sunset Pacific Oil Co., Los Angeles, Calif.
E. G. Seubert, Standard Oil Co. (Indiana), Chicago, Ill.
W. G. Skelly, Skelly Oil Co., Tulsa, Okla.
W. E. Smith, Standard Oil Co. of Kentucky, Louisville, Ky.
L. P. St. Clair, Union Oil Co. of California, Los Angeles, Calif.
J. H. Vickers, Vickers Petroleum Co., Wichita, Kans.
E. V. Weber, Ohio Petroleum Marketers Association, Cincinnati, Ohio.
Russell Williams, Indiana Independent Oil Men's Association, Indianapolis, Ind.

Employes in this industry shall have the right to organize and bargain collectively through representatives of their own choosing, and shall be free from interference, restraint, or coercion of employers of labor, or their agents, in the designation of such representatives or in self-organization or in other concerted activities for the purpose of collective bargaining or other mutual aid or protection.

No employe in this industry, and no one seeking employment therein, shall be required as a condition of employment to join any company union or to refrain from joining a labor organization of his own choosing.

Employers of labor in this industry shall comply with the maximum hours of labor, minimum rates of pay, and other conditions of employment approved or prescribed by the President.

ARTICLE 1

Refiners

(a) In the administration of this code, refiners having inadequate supplies of crude petroleum shall be given fair and equitable consideration in allocation of crude.

(b) The output of petroleum products by refiners may be restricted when this may appear to be necessary for the purpose of obtaining a proper balance in supply and demand or to carry out the purposes of this code and the National Industrial Recovery Act.

ARTICLE 2

Rule 1

Refiners, distributors, jobbers or wholesalers shall not hereafter sell, lease, loan or otherwise furnish to consumers of petroleum products or to anyone engaged in the sale of petroleum products at retail, or to consumers, any pumps, tanks, air compressors, greasing equipment or guns, lubsters or other equipment or accessories (excepting only pump globes and the usual advertising signs) for the storage, display, vending, delivering or consumption of petroleum products, except as otherwise provided in paragraph 3 of this rule.

If equipment of the kind, type or description hereinbefore mentioned now in operation becomes damaged, destroyed or worn out, it will not be replaced by any refiner, distributor, jobber or wholesaler.

The equipment of the kind, type or description, hereinbefore mentioned, furnished, loaned or leased before June 15, 1933, by any refiner, distributor, jobber or wholesaler to or installed with any retailer or consumer is not to be sold, loaned, leased or furnished in any way to any dealer or consumer except that such equipment may be loaned, leased or licensed to the retailer or consumer at such location by any new supplier subsequently acquiring title thereto. If the retailer or consumer discontinues buying petroleum products from the refiner, distributor, jobber or wholesaler who has loaned or installed such equipment and commences or is about to commence buying petroleum products from another refiner, distributor, jobber or wholesaler, such loaned, leased or installed equipment shall be sold by the refiner, distributor, jobber or wholesaler who has made the loan, to such other refiner, distributor, jobber or wholesaler on the request of such other refiner, distributor, jobber or wholesaler for the depreciated value thereof, fixed in the schedule hereto attached marked Appendix "A".

Underground equipment now installed may be sold at any time to the service station owner for the depreciated value thereof at the time, as fixed in said Appendix "A."

This rule does not apply to the sale of equipment by the manufacturer there-

of where such sale is not conditioned upon the purchase or use of petroleum products.

Rule 2

Refiners, distributors, jobbers or wholesalers shall not construct, repair, lease, loan or furnish driveways, buildings, canopies, air compressors, grease lifts or pits, grease equipment, grease guns, air towers, light poles, floodlights, material for driveways, buildings, or canopies, or any other equipment of any character whatsoever in connection with service stations or the storage, display or sale or consumption of petroleum products (excepting only pump globes and the usual advertising signs) for or to anyone engaged in the sale or delivery of petroleum products to consumers or for or to consumers.

Nothing contained in Rules 1 and 2 of this code shall prohibit a refiner, distributor, jobber or wholesaler from installing at or furnishing or equipping with any of the devices mentioned in Rules 1 and 2 any station or place where petroleum products are sold to consumers, which station or place is owned in fee by such refiner, distributor, jobber or wholesaler, or held by such refiner, distributor, jobber or wholesaler under a valid and binding lease, and at the time the lease was executed the leased premises were not improved with any building or other facility or equipment for the sale or storage of petroleum products, or held by such refiner, distributor, jobber or wholesaler under a valid and binding lease for a period of at least five years, which lease provides for a substantial rental not determined by the volume of petroleum products sold at the premises and which does not contain any provision permitting either party thereto to cancel or terminate it or the term thereby granted before the expiration of five years from the beginning of such term.

Rule 3

Refiners, distributors, jobbers or wholesalers shall not make any repairs to any equipment of any kind owned by retailers or consumers; and shall not make any repairs to any equipment now loaned or leased to or installed with retailers or consumers which necessitate the removal from the premises of the equipment in order to effect the repair.

Refiners, distributors, jobbers or wholesalers may make any ordinary repairs to any equipment now loaned or leased or otherwise furnished to retailers or consumers, provided such repairs can be made without the removal of such equipment from the premises.

Rule 4

Refiners, distributors, jobbers or wholesalers shall not do any painting, nor furnish any paint free, or sell any paint for or to retailers or for or to consumers, except pumps through which the products of the refiner, distributor, jobber or wholesaler are sold and except usual advertising signs. Any new supplier shall assume the obligation of painting out colors identifying previous suppliers of the retailers or of anyone selling petroleum products to consumers or consumers with some color other than that customarily used to identify places through which the products of the refiner, distributor, jobber or wholesaler doing the painting are sold or dispensed. Before any refiner, distributor, jobber or wholesaler paints over any sign or colors of another refiner, distributor, jobber or wholesaler it shall communicate with the refiner, distributor, jobber or wholesaler whose signs or colors are involved inquiring whether such refiner, distributor, jobber or wholesaler has any written contract which would be violated by the proposed painting. Any refiner, distributor, jobber or wholesaler to whom such inquiry is presented shall respond thereto promptly giving the information requested and if the proposed painting would violate any contract which it holds shall offer to submit the contract for inspection at its office. If the proposed painting would violate the contract so submitted, the painting shall not be done.

Refiners, distributors, jobbers or wholesalers may sell paint direct to any other refiner, distributor, jobber or wholesaler.

Rule 5

No refiner, distributor, jobber or wholesaler or other person engaged in the sale of petroleum products shall knowingly induce, attempt to induce or assist a party to break a then existing written contract for the sale of petroleum products or a then existing lease of the premises used for the sale of petroleum products between that party and another.

No refiner, distributor, jobber, wholesaler, retailer or other person engaged in the sale of petroleum products shall sell or deliver any naphtha, gasoline, motor fuel, automotive lubricating oil, grease, kerosene or heating oil to anyone knowing that such sale or delivery will violate or prevent the performance of a then existing written contract between the person to whom the sale or delivery is made and another.

No contracts in violation of this code are protected under this rule.

Rule 6

When any pump, tank or other device for the storage, display, consumption, handling or sale of naphtha, gasoline, motor fuel, lubricating oil, grease, kerosene bears the name, trademark, or trade name of any person, firm, association or corporation engaged in the manufacture or sale of any such commodity, no other person, firm, association or corporation shall deliver into or deliver for sale from such pump, tank or other device, or any tank or other container connected therewith, any naphtha, gasoline, motor fuel, or lubricating oil, other than that manufactured, sold or distributed by the person, firm, association or corporation whose name, trademark or trade name is so affixed and no person, firm, association or corporation shall in any way knowingly be a party to the substitution of one grade or brand of naphtha, gasoline, motor fuel, or lubricating oil for another.

Rule 7

Lotteries, prizes, wheels of fortune or other games of chance shall not be used in connection with the sale of petroleum products.

Rule 8

Proposed Rule

It is hereby declared as unfair trade practice for any refiner, distributor, wholesaler or jobber to contract or in any way, orally or in writing, directly or indirectly whether by lease and agency, lease and license or any other manner enter into any agreement with any dealer, service station operator, or vendor of petroleum products, which agreement provides for or purports to provide for the exclusive sale or distribution of the products of said refiner, distributor, wholesaler or jobber;

Provided this provision shall not apply

(a) where the dealer, service station operator or vendor of petroleum products occupies a station or place of business which is owned in fee by such refiner, distributor, wholesaler or jobber,

(b) or where held by such refiner, distributor, wholesaler or jobber under a valid and binding lease, and where the premises at the time the lease was executed were not improved with any building or other facilities or equipment for the sale or storage of petroleum products, or

(c) held by such refiner, distributor, wholesaler or jobber under a valid and binding lease for a period of at least five years where the lease provides for a substantial rental not determined by the volume of petroleum products sold at the premises and where the lease does not contain any provision permitting either party thereto to cancel or terminate it or the term thereby granted before the expiration of five years from the beginning of such term.

Nothing in this rule shall be construed as preventing any refiner, distributor, wholesaler or jobber from making a bona fide lease as above set forth and subleasing said site and improvement to anyone at the same rent paid by the sublessor plus a fair return of the investment put thereon by the sublessee and provided further that the compensation allowed the sublessee and/or operator shall not exceed the compensation, if on a gallonage basis, allowed generally to retailers not operating under contractural obligations.

All such leases and subleases shall be recorded before becoming valid.

All existing contracts or sales agreements which constitute unfair trade practices as herein defined, should be terminated as promptly as practicable in keeping with the spirit of the rule.

Rule 9

Refiners, distributors, jobbers, wholesalers, retailers and others engaged in the sale of petroleum products shall not sell any such refined petroleum products below cost of manufacturing or importation into the state where offered for sale, plus reasonable expenses in the cost of marketing as observed under prudent management, fixed taxes and inspection fee by the Federal or state government, or any political subdivision thereof, and a reasonable profit to cover wages for management.

Rule 10

Refiners, distributors, jobbers or wholesalers shall not loan money to retailers or others engaged in the sale of petroleum products, or to consumers, for any purpose whatsoever and shall not extend any credit to any retailer or to anyone engaged in selling petroleum products to consumers except for merchandise sold for resale. Refiners, distributors, jobbers, or wholesalers shall not pay for or reimburse to any retailer or consumer, either directly or indirectly, any property tax, privilege tax, license fee or tax, inspection fee or tax, chain store tax or any other charge, tax or impost levied or assessed by any taxing authority upon any retailer or consumer in connection with the operation of any place or facility for the sale of petroleum products, nor advance money for the same.

Rule 11

Refiners, distributors, jobbers or wholesalers shall not lend, lease or otherwise furnish any equipment of any character whatsoever except trade-marked pump globes and other usual advertising devices to anyone purchasing or receiving petroleum products by tank car, tank barge, truck train or pipe line or to anyone selling petroleum products for resale, or consumption.

Rule 12

Refiners, distributors, jobbers or wholesalers shall not pay rentals or otherwise pay for the privilege of displaying advertising on premises where naphtha, gasoline, motor fuel, lubricating oil, grease, kerosene or heating oil are sold.

Rule 13

Refiners, distributors, jobbers or wholesalers may own service or filling stations or sites for same and may fully equip such stations or sites and may lease, operate or license such stations or grant a license to anyone to operate such stations for the distribution of petroleum products manufactured or sold by such refiner, distributor, jobber or wholesaler, or such refiner, distributor, jobber or wholesaler may employ anyone as agent of such refiner, distributor, jobber or wholesaler for the sale of petroleum products thereat.

Rule 14

Gasoline shall not be sold or delivered from tank wagons or trucks to motor vehicles except in emergency cases.

Rule 15

Refiners, distributors, jobbers, wholesalers, retailers and others engaged in the sale of petroleum products shall not give away oil, premiums, trading stamps, free goods, or other things of value, or grant any special inducement in connection with the sale of petroleum products.

Rule 16

All refiners, distributors, jobbers and wholesalers shall conspicuously post at each point from which they make deliveries, and at places there readily accessible during business hours to the public, all prices for which naphtha, gasoline, motor fuel, lubricating oil, grease, kerosene and heating oils are sold.

With the exception of sales made directly by refiners, all such prices shall remain in effect for at least twenty-four (24) hours after they become effective. Refiners must post for twenty-four (24) hours the prices for all sales made the previous day. The posting shall include the following: The prices for all classes, types, methods and quantities of deliveries, except those under previously executed contracts, being made from the place where the price is posted, a schedule of all discounts offered and the terms thereof and a statement of all terms as to freight rates and deliveries. If different prices are offered to different classes of buyers, such prices shall be separately posted. The posted prices shall include, among others, the prices for spot sales. When prices are posted for deliveries in tank wagon or tank trucks, the posting shall describe the area to which the prices apply. All sales shall be made at the posted prices applicable thereto and no departure shall be made from the prices, schedule or discounts or from the terms posted applicable to any such sale.

All retailers, and others who sell to consumers, shall conspicuously post at the place from which delivery is made, and at places there readily accessible during business hours to the public, one price at which each brand, grade or quality of naphtha, gasoline, motor fuel, lubricating oil, grease, kerosene and heating oil are sold. All retailers, and others who sell to consumers, unless prevented therefrom by applicable law, shall separately post in the same manner all tax they are required to pay or collect because of the sale of naphtha, gasoline, motor fuel, lubricating oil, grease, kerosene or heating oil. All prices posted shall remain in effect for at least twenty-four (24) hours after they are posted.

All sales shall be made at the posted price applicable to the brand, grade or quality of the commodity sold.

Coupon books or other scrip of any nature, if used, shall be sold and redeemed at their face value without any discount.

No one shall make any deviation from his posted price by means of rebates, allowances, concessions, benefits, scrip books, quantity discounts, discounts to buyers of a class or by any plan, device or scheme whereby any buyer obtains any naphtha, gasoline, motor fuel, lubricating oil, grease, kerosene or heating oil at a net cost lower than the applicable posted price.

The provisions of all previously exe-

Rule 8

Proposed Rule

Refiners, distributors, jobbers or wholesalers may acquire for any period by lease, sublease or by assignments thereof service or filling stations or sites for same and any service or filling station or site therefor so acquired may be leased, subleased or licensed by such refiner, distributor, jobber or wholesaler to the owner or lessor thereof or to any other person to be operated as a filling station for the distribution of the products manufactured or sold by such refiner, distributor, jobber or wholesaler, or such refiner, distributor, jobber or wholesaler may employ the owner or lessor thereof or any other person as the agent of such refiner, distributor, jobber or wholesaler for the sale of petroleum products thereat. Nothing herein contained shall require anyone acquiring such lease, sublease or assignment of lease to record or file it in any public record. Nothing herein contained shall modify or limit the provisions or effect of Rule 2 hereof or permit the installation at any place leased, as herein provided, of any equipment prohibited by Rules 1 or 2 hereof.

Note: The conference reached a deadlock on the lease and agency question and the form in which Rule 8 is presented here was decided upon to break the impasse, id est, the opposing views are stated side by side.

cuted then existing contracts regarding price will be available for inspection upon the direct request of any competitor.

On a change in the posted price no adjustments, allowances, credits or refunds shall be given to any buyer on deliveries already made.

Abnormal deliveries in anticipation of price advance and acceptances of orders for subsequent deliveries at prices effective before advances, are prohibited.

Rule 17

No one shall make any delivery of naphtha, gasoline, motor fuel, kerosene, range oil or heating oil at any refinery, terminal or bulk plant to a reseller, into any wagon, truck, tank wagon or tank truck owned or operated by or for such reseller. The term "reseller," as herein used, shall be construed to include any agent selling such commodities on a commission basis. Deliveries may be made in exchange for similar commodities received or to be received by the person making the deliveries from the person to or for whom the delivery is made.

Nothing in this rule contained shall apply to deliveries made to bona fide jobbers either in their own vehicles, or for their account, from refineries, terminals or bulk plants.

Rule 18

The provisions of this code relating to transactions of refiners, distributors, jobbers or wholesalers with retailers and others selling or consigning petroleum products to consumers shall apply to all such accounts, all lease and agency accounts, all lease and license accounts and all accounts of any description under which refiners, distributors, jobbers or wholesalers sell their products or cause their products to be sold to consumers or to retailers, or to others selling petroleum products to consumers.

Rule 19

Refiners, distributors, jobbers, wholesalers and retailers shall permit any duly authorized employe, agent or representative of the commission delegated under the national recovery act to make any inspection or examination of books, records, contracts, plants or stocks of merchandise to determine if there has been any failure to comply with the provisions of this code or any failure of the refiner, distributor, wholesaler or retailer or by any other person, firm or corporation to pay any tax required to be paid because of the receipt, sale or use of any naphtha, gasoline, motor fuel, lubricating oil, grease, kerosene, range oil, heating oil or any other petroleum product.

Rule 20

The schedule of credit attached hereto marked "Appendix B" is hereby adopted by the petroleum industry as a uniform basis of credit to be applicable to all deliveries made after the effective date of this code. The granting of a longer term of credit or a larger rate of discount by any refiner, distributor, jobber, wholesaler or retailer than that allowed by this schedule shall constitute an unfair method of competition.

Contracts made prior to June 15, 1933, are excepted from the provisions of this rule.

Rule 21

The broadcasting or publishing, in any manner, of a claim, representation or implication which might be reasonably construed to lead to a false or incorrect conclusion in regard to the goods, prices or service of the advertiser, or in regard to the goods, prices or service of a competitor, or which lays claim to a policy or continuing practice of generally underselling competitors, is an unfair and uneconomic practice and is prohibited.

Rule 22

Refiners, distributors, jobbers, wholesalers or retailers shall not render any burner service in connection with the sale of heating oils and fuel oils, nor shall any refiner, distributor, jobber, wholesaler or retailer grant a commission of any kind to any person other than a regular employe of such refiner, distributor, jobber, wholesaler or retailer in connection with such sales. This rule is not to be construed to prohibit advisory service.

Refiners, distributors, jobbers, wholesalers or retailers shall not sell to consumers of heating oils and fuel oils for delivery by tank wagon or tank truck on a contractual basis for a period exceeding 12 months.

Rule 23

In all sales of petroleum products for resale, refiners, distributors, jobbers or wholesalers may, by contract, require purchasers to sell at prices therein designated for such resale; and may further require that if such products are thereafter sold by such purchaser for resale that the original purchaser shall incorporate a similar provision in the contract with its purchaser for resale.

Any purchaser who agrees to sell any refined petroleum products at the prices designated therefor by the refiner, distributor, jobber or wholesaler, from whom purchased, shall make all sales thereof at prices not less than those so designated.

Rule 24

This code shall not apply to contracts actually made prior to June 15, 1933, until July 1, 1934, whereupon it shall apply to all such contracts as soon as any cancellation or termination thereof can be legally accomplished.

This code shall apply to all contracts made after June 15, 1933, and shall apply to all renewals or extensions made after June 15, 1933, of contracts made prior to June 15, 1933.

The provisions of this code shall not apply to transactions between subsidiary or affiliated companies. Companies shall be considered to be affiliated when one owns the majority of the outstanding capital stock of the other and when the majority of the outstanding capital stock of each is held by the same individual, corporation or association. The parent company or companies owning the majority of stock in other companies shall be responsible for the observance by such subsidiary or affiliated company of the provisions of the rules of this code.

The provisions of this code shall not apply in respect to sales made in the United States for export to foreign countries; and shall not apply to contracts termed by this code as unfair trade practice.

Rule 25

The unauthorized use by any person, firm or corporation of the trade-mark, trade slogan, insignia or emblem of any trade association in the petroleum industry, or the assertion or claim, by advertisement or otherwise, by any person, firm or corporation that he or it is a member of any such association when in fact not a member thereof, shall be an unfair trade practice.

Rule 26

In as much as there are firms and corporations in the petroleum industry who severally or through firms and corporations owned or controlled, constitute and comprise a complete or integrated unit in such industry or produce and refine petroleum and market the products manufactured therefrom, it is therefore the declared policy of this industry that the business thereof shall be so conducted that the several branches of this industry, viz., producing of petroleum, refining, and marketing of refined products may be carried on upon a profitable basis and that no one or more of said branches shall obtain or receive excessive or disproportionate gain or profit therefrom to the exclusion of any other branch of this industry.

Rule 27

What is true of selling crude petroleum below the cost of production is also true of selling the refined products thereof below cost; and the President is requested, upon the recommendation of the Emergency National Committee, to establish from time to time minimum and maximum prices for motor fuel and any other products of petroleum, the prices of which the committee decides should be fixed for the different localities of the United States in relation to such base points as the committee may indicate, and the President is also requested, upon the recommendation of the Emergency National Committee, to establish such margins between delivered cargo or tank car prices on the one hand and tank wagon and consumer prices on the other hand as may seem just and equitable.

Rule 28

A violation of any of the rules of this code shall constitute an unfair method of competition.

In the event any rule of this code should be disapproved or held invalid, such action shall in no way affect any other rule hereof.

Rule 29

In order that the declared policy of "The National Industrial Recovery Act" shall be effectuated:

(a) Employes of refiners and sellers of petroleum products shall have the right to organize and bargain collectively through representatives of their own choosing, and shall be free from the interference, restraint, or coercion of employers of labor, or their agents, in the designation of such representatives or in self-organization or in other concerted activities for the purpose of collective

Gen. Johnson Bans Selling Below Cost; Roper Names Teagle and Benedum

WASHINGTON, D. C., June 26.—Gen. Hugh S. Johnson, director of the national recovery administration, in an appeal for public support for the industrial control legislation, said, "our best

—(c) Underwood & Underwood.

GEN. HUGH S. JOHNSON

people understand that this is no time to get rich quick."

Declaring that the granting of higher wages ordinarily would tend to result in higher prices, General Johnson said "if we do a thing like this and do not also put some control on undue price increases so that prices will not move up one bit faster than is justified by higher costs, the consuming public is going to suffer, the higher wages won't do any good, and the whole bright chance will just turn out to be a ghastly failure and another shattered hope."

"This does not mean selling below cost," the administrator added. "The first effect of this plan will be to increase business and bigger business is a better way to profit than is higher price.

"This is a deadly serious matter—this danger of run-away prices. There are still about 12,000,000 unemployed in this country and even those who still have jobs are largely on much reduced incomes. Any wildcat price lifting will have its first bearing directly on the very creature necessities of these unfortunates—their means to keep out hunger, thirst and cold. This administration simply will not stand for that and we do not expect to have any trouble about it."

Setting up his organization at the direction of President Roosevelt weeks before the enabling legislation was enacted, General Johnson expressed a hope that the 10 major industries employing some 78 per cent of the workers in manufacturing plants would be ready with their codes at once.

To Use Insignia

To date only the textiles among the major industries have formally presented proposed codes although more than a score of smaller industries have come in. Others of the basic manufacturing businesses are working in various parts of the country upon their codes—industries including steel, coal, oil, rubber and lumber—but there have been definite reports that they were watching for results from the textile hearing.

Meanwhile, General Johnson has reports that many plants have stepped up production on the present wage levels and are accumulating big stocks on hand prior to bringing themselves under the recovery administration.

While asserting that no effort was being made for the present to bring other than the major basic industries into line, he indicated that public opinion would be relied upon to make the law a success.

In the months to come, he said, "any business which does not bear the insignia showing that it is co-operating toward national recovery under this act will be very unpopular with the people."

The licensing features of the industrial regulation legislation would be very little used for "it is repugnant to every American idea."

"I want to avoid inquisitorial powers and police functions," he said, reiterating that he expected industries to police themselves.

Deputy Administrators

Six deputy administrators to conduct hearings and investigations in connection with applications for approval of "codes of fair competition" have been appointed.

"The function of the deputy administrators," General Johnson said, "will be to assist in the conduct of the hearings which all of the units in an industry—employers and workers, both organized and unorganized—will be heard on any proposed code of fair competition to govern the industry. The code will fix minimum wages, maximum hours of work and prescribe regulations designed to eliminate unfair practices of every kind.

"Each deputy administrator will be counselled during the preliminary investigations and subsequent hearings by industrial, labor and business leaders, named by their respective boards and chosen, in the cases of the labor and industrial advisers, because of their reputation in the affected industry.

"A code having been agreed upon, it will be submitted by the administrator to the President for approval. When finally approved by the President, the code will be in the nature of the 'law merchant' for the industry."

Roper Heads Recovery Board

The National Industrial Recovery Board appointed by the President by executive order held its organization meet-

(Continued on Page 33)

bargaining or other mutual aid or protection;

(b) No such employe and no one seeking employment shall be required as a condition of employment to join any company union or to refrain from joining, organizing, or assisting a labor organization of his own choosing;

(c) Refiners and sellers of petroleum products shall comply with the maximum hours of labor, minimum rates of pay, and other conditions of employment, approved or prescribed by the President.

Rule 30

Evasion of taxes in the sale of petroleum products gives to evaders an undue and unlawful advantage over legitimate marketers and is unfair competition within the meaning of the national Industrial Recovery Act.

ARTICLE 3

Section 1. The rules of this code so far as applicable shall apply to the production and marketing of natural gasoline.

ARTICLE 4

Refining

In the administration of this code, refiners having inadequate supplies of crude petroleum shall be given fair and equitable consideration in allocations of crude.

The output of petroleum products by refiners may be restricted when this may appear to be necessary for the purpose of obtaining a proper balance in supply and demand or to carry out the purposes of this code and the National Industrial Recovery Act.

Resolution

Be it resolved it is the sense of this meeting that condition and trade practices now exist in the petroleum industry which make it essential to license the business of producing, transporting, refining and marketing petroleum and its products.

In order to make this code effective and to effectuate the policy of Title I of the National Industrial Recovery Act, we, therefore, request that the President call a hearing upon such public notice thereof as he shall specify, in order to determine whether or not it be essential to license the above named subdivisions of the petroleum industry, in order to make effective this code and to effectuate the policy of Title I of the National Industrial Recovery Act and we further request that such hearing be held at the same time and the same place as the hearing on this code.

Resolution

The importation of crude petroleum and the products thereof in large quantities is hereby declared to be unfair competition injuriously affecting interstate commerce. Therefore the President is requested to limit the imports of crude petroleum and the products thereof to an amount not exceeding the average daily imports into the United States during the last six months of 1932, such imports to be allocated to the various persons desiring to import such petroleum and the products thereof in such equitable manner as the President may determine.

Resolution

Whereas, the production of natural gasoline is governed wholly by the production of crude oil and natural gas sales, and, whereas, natural gasoline must be included in any estimate of total available supply, since it all goes into the motor fuel market by some route; therefore, be it resolved, that this meeting instruct the correlating committee to include the term "natural gasoline" in each equation in the joint code which attempts to balance total available supply with total demand.

APPENDIX "A"—PROPOSED SCHEDULE OF EQUIPMENT PRICES TO BE USED AS A BASIS OF PURCHASE OR SALE BETWEEN OIL COMPANIES

Blind Gasoline Pumps

All makes of blind pumps including duplex and all sizes, 1 to 5 gallons capacity—$20.

Visible Pumps

Five-gallon dry or wet hose visible—10 or 15-gallon dry hose visible.

Dual bowl visible—all types.

Five-gallon blind pumps with 5 or 10-gallon visible attachment.

Remote control visible.

Air lift visible.

All of the above—$20.

Ten and fifteen-gallon visible wet hose, all makes—$40.

Ten or fifteen-gallon visible wet hose, electric power operated—$50.

Electric Meter Pumps

Electric flow meter pumps, with or without air separator—$45.

Electric displacement meter pumps, without air separator—$70.

Electric displacement meter pumps, with air separator—$85.

On any of the above pumps furnished in twin type the price shall be double that of the single unit.

It is to be expected that the majority of companies will agree to the prices as set up for electric meter pumps. However, a jobber or smaller company may choose to buy or sell at the price set up as before mentioned, or may choose to buy or sell at the invoiced cost of the respective electric pump equipment, plus freight, less depreciation and obsolescense of 15 per cent per annum from date of invoice at date of purchase. Depreciation to be computed on a monthly basis.

The jobber or smaller company shall elect to deal on either one of the aforementioned bases with all suppliers. Having selected the basis on which he prefers to deal he shall be required to use that basis when selling or buying or vice versa. The major oil company will deal with the jobber or the small company on whichever basis the jobber or smaller company elects.

Gasoline Buggies or Wheel Tanks

Any capacity, identified by underwriter's label—$50.

Same as above, not identified by underwriters—$25.

Skid Tanks With Pumps

Skid tanks used for gasoline, kerosene or distillate, up to 550-gallon capacity, equipped with pump, any type—$25.

Combination Gasoline or Kerosene Underground Tanks With Pumps

One hundred to two hundred-gallon capacity, with 1-gallon or rotary pump—$25.

Miscellaneous Pump Equipment

Hydraulic systems, drop cylinder jobs, remote control systems, and any other special type of equipment including airport equipment and equipment used to serve marine trade, etc., shall be considered special equipment. Purchase or sale price shall be arrived at by joint appraisal on the premises.

Underground Tanks

Underground tanks shall be bought or sold at prices shown, which include all installation costs, labor, materials, freight, etc., up to and including the installation of the pump itself (value of pump not included) on the following basis:

280-gallon tank	$35.00
550-gallon tank	50.00
1,000-gallon tank	75.00
2,000-gallon tank	100.00

These prices are for tanks of any specification, galvanized or black steel as now installed.

Capacities of tanks shown above are normal sizes and may vary 10 per cent more or less.

For each additional pump installed on one tank add $10 for installation cost.

Where the original installation of the tank and piping involved the removal and replacing of concrete, an allowance of 25 cents per square foot with a maximum allowance of 60 square feet for each tank and 60 square feet for pipe trench shall be added to price of the respective size tank.

Where tanks are installed under unusual conditions due to ordinances or regulatory restriction which resulted in excessive costs the purchase or sale will be based on the actual cost of such installation less 10 per cent per annum depreciation on equipment and material used plus actual labor cost.

Odd size tanks not covered by the above classification shall be bought and sold at a price interpolated between those specified.

Underground tanks and any part of the underground installation in connection therewith, may be repaired or replaced by the owner thereof. If replaced the new tank shall be of the same capacity as original and the original removed from the premises or made unfit for use.

Automobile Lifts, Racks and Pits

Automobile lifts of plunger type will be bought or sold at the invoice price date of seller's purchase, plus freight, less 15 per cent per annum depreciation from date of invoice, plus a flat installation charge of $40, plus an allowance for concrete, if any, installed by owner of lift up to a maximum of 400 square feet, based on 20 cents per square foot.

Portable steel automobile lifts, grease and wash racks will be bought or sold on invoice price date of seller's purchase, plus freight, less 25 per cent for depreciation and obsolescense per annum from date of invoice. No allowance for installation cost.

Pits and nonportable racks will be bought or sold on a basis of joint appraisal on the premises at time of exchange.

Compressors

All air compressors will be bought or sold on a basis of invoice price date of seller's purchase, plus freight, less 25 per cent per annum depreciation and obsolescense from date of invoice. No installation cost considered.

Kerosene Equipment

Kerosene equipment shall be bought or sold at the following prices for the respective sizes and classes:

60 to 65-gal. square kerosene tank equipped with pump	$12.00
110 to 120-gal. square kerosene tank equipped with pump	15.00
150 to 165-gal. square kerosene tank equipped with pump	25.00
200 to 220-gal. square kerosene tank equipped with pump	30.00
Round portable kerosene tanks, equipped with pump 60 to 120-gal. capacity	6.00
Rectangular kerosene tanks, equipped with pump 60 to 65-gal. capacity	12.00
Cellar kerosene outfits, equipped with stand pipe and pump:	
60 to 120-gal. capacity installed each	40.00
250 to 275-gal. capacity installed each	70.00
50 to 120-gal. miscellaneous faucet tanks and tin pump tanks	2.00
Lubricating oil equipment:	
50-gal. round lub. oil tank	3.00
60-gal. square lub. oil tank	3.00
15-gal. rectangular lub. oil tank	3.00
30-gal. rectangular lub. oil tank	7.00
60-gal. rectangular lub. oil tank	9.00
60-gal 2-compartment lub. oil tank	10.00
90-gal. 3 compartment lub. oil tank	15.00

Any of the above lubricating oil equipment equipped with meter add $1.50 to the above prices.

1-quart oil bottles, each	$ .19
Tray for 1-quart oil bottles	.25
1-quart barrel pump	1.00

Miscellaneous lubricating equipment such as air systems, built-in installations, underground installations, miscellaneous portable equipment, etc., not specifically mentioned in the above lubricating oil equipment shall be considered special and the purchase or sale price shall be arrived at by joint appraisal on the premises.

Grease equipment:	
25-lb. grease bucket or kit without meter	$3.00
Same as above with meter	7.00
100-lb. grease outfit without meter	3.00
Same as above with meter	7.00

No charge for dolly in connection with the 100-pound grease outfit.

Miscellaneous grease equipment such as built-in installations, portable equipment, power guns, special portable guns, hand guns, grease gun boards, etc., not specifically mentioned in the above grease equipment shall be considered special and the purchase or sale price shall be arrived at by joint appraisal on the premises.

Where grease boards furnished by supplier carry trade-mark advertising which cannot be readily effaced by any practical means, supplier shall remove from the premises.

Miscellaneous Equipment

Air and water standards, flood lights and lamp posts or any equipment not specifically mentioned herein will be bought or sold on a basis of joint appraisal on the premises at the time of exchange.

Sign posts will be considered as property of oil company and shall be removed.

All signs owned by oil company may be bought or sold by joint appraisal.

Depreciation on Flat Prices

Where flat prices are shown herein as a basis for sale or purchase of the respective equipment—these flat prices are based on a value as of July 1, 1933, and therefore are subject to depreciation at the rate of 1 per cent per month thereafter or fraction thereof, which depreciation shall be deducted from such flat prices.

Minimum Prices

Where flat prices are shown or where the purchase or sales price is arrived at by a depreciated basis in no case shall the net sale or purchase price of the equipment itself be less than an amount equal to the depreciation for one year.

Arbitration

In case any dispute arrives over prices and values of all the respective equipment herein mentioned which do not definitely state a price, the suppliers involved shall choose an arbitrator who shall be a disinterested representative from some other oil company in the immediate vicinity, to whom the suppliers shall present their case. The decision of the arbitrator chosen shall be final.

APPENDIX "B"—MAXIMUM CREDIT TERMS

	Credit terms:
(1) Gasoline and Kerosene Sales:	
In tank car and barge shipments	One per cent 10 days from date of shipment net 30 days. One per cent on sight draft payments.
In tank wagon deliveries	Load-to-load, or net 15th proximo. No cash discount.
Service station deliveries	Cash or coupons only.
Coupon books, in denominations of not less than $10, may be sold at face value, without discount, for cash, or on credit payable net 15th proximo.	
(2) Gas Oil and Fuel Oil Sales:	
In tank car or barge shipments, or deliveries to ships' bunkers	One per cent 10 days from date of shipment net 30 days. One per cent on sight draft payments.
In tank wagon deliveries:	
To resellers	Load-to-load, or net 15th proximo.
To consumers	Net 15th proximo.
(3) Lubricating Oil and Grease Sales:	
In tank car and drum car shipments:	
Unbranded oils and greases	One per cent 10 days from date of shipment net 30 days, or 30-60-90 day trade acceptance.
Branded oils and greases	One per cent 10 days from date of shipment net 30 days, or 30-60-90 day trade acceptance.
L.C.L. shipments:	
All oils and greases	One per cent 10 days, or net 10th proximo.
Truck and tank wagon deliveries:	
All oils and greases	One per cent 10 days. Net 10th proximo.
Service station deliveries	Cash or coupons only. Net 10th proximo.

A. I. M. E. Stabilization Forum, Article No. 6; Political Considerations in Stabilization

By J. HOWARD MARSHALL and NORMAN L. MEYERS *

Market demand has now, after several years of experiment, become one of the basic criteria by which are determined both the total production quotas of the States of Texas, Oklahoma and Kansas and the proportion of such quotas to be allocated to the various large pools within those States. In the foregoing States, curtailment to market demand has been expressly or impliedly authorized by statute; in California, despite the failure on referendum of similar legislation, the same result has been achieved through the medium of a so-called voluntary curtailment committee and in other less productive areas, calculation of "market demands" plays an official or unofficial part in limiting individual production to an agreed upon allowable.

The prescribed method of determining market demand is dual in nature. From statistics furnished by the Federal Bureau of Mines, the Voluntary Committee on Economics of the Federal Oil Conservation Board, and the American Petroleum Institute, the Oil States Advisory Committee makes a forecast of the total demand of the nation for a given period of time, and divides, by a process still best described as "horse-trading," the amount thus derived among the major producing states. The administrative bodies entrusted with proration meanwhile compile, with occasional variations in procedure "nominations" for each pool of anticipated monthly purchases by the buyers of crude. Theoretically these latter totals become the market demand for the different pools. But "nominations" in some fields have been considered too high and not bona fide proposals to buy. Consequently an "adjustment" of these totals, practically always downward, is made and the resulting figures are prorated among the producing properties for the various pools. Strangely enough, the sum of the market demand for all the pools in a state approximate the quota agreed upon for that state by the Oil States Advisory Committee.

Market Demand and Rate of Flow

There is clearly no necessary relation between the "market demand" of the nation, or even of a pool, and a proper rate of flow which will produce oil with the utmost efficiency. Geologists testify that there is both a minimum and maximum rate at which a well should flow to prevent avoidable underground wastes. As a technical matter, it is conceded that physical waste can best be minimized by according consideration to the geologic peculiarities of each pool. If production geared to "market demand" operates a pool at its optimum, it is merely coincidence.

But the proponents of proration to market demand have assumed that "market demand" is a "mere gauge of production," and that limiting production to market demand merely avoids above-ground storage and possible surface wastes. Thus far they have apparently carried the U. S. Supreme Court with them. In the Champlin case, Mr. Justice Butler upheld the Oklahoma statute and the orders issued thereunder. In his opinion, Mr. Justice Butler seems to find justification for proration to market demand in the alleged avoidance of surface wastes which would otherwise occur because of "serious potential overproduction throughout the United States." Although seemingly aware that there is a relationship between "overproduction" and low prices, he nevertheless insists that proration which prevents "overproduction" has not had the effect of controlling the price of crude. In this case Mr. Justice Butler "puts aside" the contentions that the applicable sections of the statute "contemplates directly or indirectly regulation of prices." He could find nothing nefarious either in the legislative or administrative purpose; and found convincing proof of the purity of purpose in the fact that there was a "great and long continued downward trend of prices contemporaneously with the enforcement of proration." He does admit, however, that if it can be shown that proration orders are "unjust or arbitrary" or proved "otherwise invalid" that a different result might follow. This would seem to imply that if a price fixing effect were demonstrated, proration orders might be enjoined.

Despite the contention that market demand is a "mere gauge of production," there is, after all no such thing as demand in a vacuum—there is demand only at a price. The theory of the control of production by proration is predicated upon equating supply to ascertained demand by curtailing supply. But "ascertained demand" can only be determined by reference to price. When there is an alleged surplus of available supply, those who seek to calculate demand must necessarily set a price sufficiently low to attract buyers to absorb that alleged surplus. Conversely, if an overhanging supply is removed from the market, the remaining supply can be disposed of at a higher price; in other words, there would still be enough purchasers to absorb the allowed supply who would buy even at the higher price. So, if supply is set in terms of demand, those who seek to calculate demand must inevitably consider the price range at which that supply will be absorbed. The task of those who control is somehow to restrict supply to satisfy the ascertained demand within the selected price range. Despite the glib talk of the law of supply and demand determining price as if the amounts demanded and the amounts supplied at a particular price were independent of the price in the supply and demand equation, no one of the components of this equation is constant, but each is a variable and varies in terms of the others. Whatever else may be done by judicial exclusion, it is hardly possible to put aside the effect on a price equation of holding constant—i.e., by proration—the supply term, no matter how benign the purpose.

As proof that proration had no effect on prices, Mr. Justice Butler accepted the figures of counsel for the state commission showing that "when the first order was made the price was more than $2 per barrel" but the price "had declined until at the time of trial it was only 35 cents." These figures appear conclusive enough despite the niceties of the price-equation syllogisms; but a more searching examination of longer and broader price trends raises serious question. Aside from vain speculation over what the price of crude might have been had there been no proration, why is a drop in price to 35 cents a barrel at the time of trial selected as the basis of comparison and a subsequent rise to almost $1 by the time of appeal to the Supreme Court ignored? The drop in price of Oklahoma oil in the early stages of proration is satisfactorily explained as being due to the competition of crude from other major producing areas which had not yet perfected proration programs. When the other producing states perfected proration, there was an almost vertical rise in the price level which was acclaimed by the industry as indicative of the success of proration. And this occurred at a time when the immediate potential supply was greater than ever before and the total consumption of petroleum products was slackening for the first time in recent years. And if negative proof be needed, in recent months with the failure of enforcement of proration orders, the price structure has again collapsed. Furthermore, at this time when price indices have steadily pointed downward, there has been a firming of the cost of crude whenever proration is effectively enforced.

In defense of the contention that proration does not affect price, it is urged that the demand for crude oil is inelastic and can be forecasted with precision regardless of price. It is assumed that the demand for crude is inelastic because the consumption of gasoline, its major product, is not greatly affected by current price fluctuations so much as by the volume of motor transportation. Even if it should prove true that gasoline consumption is relatively inelastic it does not follow that the demand for crude likewise is inelastic. When the price of crude drops, it attracts speculative demand; large volumes go to storage to await a rise. Low prices stimulate new, though inferior uses, such as furnace consumption, and cheaper, though inefficient refining. And even if domestic demand for crude is assumed to be inelastic, cheap crude encourages export in competition with the low cost foreign fields. No matter what allowance is made for the inelasticity of gasoline consumption, these other outlets for crude, admittedly marginal demand, are affected by and affect price. The pressure of this marginal oil on a market straddled with large overhead costs exerts a depressing effect on the whole price structure. Any scheme of proration by which overhanging supplies are removed from the market affects the price structure.

Price and Conservation

The interrelation of price and proration has created grave administrative difficulties and involves intricate legal questions. Because of its effect on price, proration has done more than merely promote physical conservation; it has resulted in an inter and intrastate struggle for the restricted market. To resolve these problems, two major proposals have been put forward: A "uniform act for oil and gas conservation" has been drafted and an interstate compact between the oil-producing states has been proposed.

The Oil States Advisory Committee is sponsoring a proposed uniform law modeled upon already existing conservation and proration statutes. The proposed law, however, has two unique features: It speaks for the first time specificially of price, and it makes provision for formal interstate co-operation. In respect to price the proposed law provides that in order to prevent "the premature abandonment of wells of settled production" the proper state commission may curtail production until reasonable market demand is at a price at least equal to the "average cost" of production from such wells. It is declared that production of oil at less than such "average cost" will cause waste of petroleum still

Entitled to Most Careful Study

The article in the March, 1933, Yale Law Journal, from which the extracts comprising this article are taken, forecast, if indeed it did not to some extent influence the action now being undertaken by the Federal Administration in regard to oil. The complete article, with its comprehensive footnotes and references, all to be found in the Yale Law Journal, is entitled to the most careful study by members of the oil industry for it sets out in an illuminating manner the influences that may be expected to shape the course of the oil industry as well as the direction it will take. We had hoped to secure from Mr. Marshall a summary in popular form of the article in question, but the press of demands elsewhere has delayed his complying with our request. Because of its applicability to matters now occurring that are of great consequence to the oil industry, we are presenting it in this present form.

(Signed) EARL OLIVER.

*Extracts from an article entitled "Legal Planning of Petroleum Production; Two Years of Proration" reprinted by permission from the March, 1933, issue of the Yale Law Journal. J. Howard Marshall is assistant to the dean and instructor in the Yale School of Law; member of the Connecticut bar and of the stabilization committee, American Institute of Mining and Metallurgical Engineers. Norman L. Meyers, Ph. D., is associate attorney, Federal Power Commission, member of the District of Columbia bar.

capable of extraction from wells of settled production, lead to inferior and wasteful uses of oil, and discourage the discovery, development and preservation of adequate underground reserves.

The proposed law also makes provision for participation in an interstate compact of the oil-producing states; and is a counterpart of a bill recently introduced in Congress to gain Federal participation and consent. The projected proposal would make legitimate the present off-spring of the oil states, the Oil States Advisory Committee, and also would make it sui juris, capable of enforcing its rights. Specifically the proposed interstate compact contemplates: (1) The adoption of a fact-finding agency to forecast demand, domestic and foreign, estimate supply, and allocate production quotas; (2) a tacit agreement by each state to abide by the quotas set; (3) agreement by the Federal Government to limit imports to the quota set; and (4) the future recommendation of uniform conservation laws similar to those embodied in the foregoing uniform act for oil and gas conservation.

Control of Waste Forgotten

In this legislative program resulting from the struggle of competing interests for markets, the control of waste implicit in conservation has been forgotten. If the proposed legislation were to be adopted, it promises to do little more than freeze the present methods of operation. And it is extremely doubtful whether the present system of proration has accomplished any appreciable conservation of oil resources. Although a few minor surface wastes may have been eliminated through the delay in production, there is not much prospect of an appreciable increase in the maximum recovery from the great flush fields or decrease in the cost of that recovery. Mere delay in production affects price and has no necessary relation to conservation. As pointed out in a previous article, no mere scheme of prorationing will curtail competitive drilling and eliminate the costs of unnecessary offset wells; nor insure the proper location of wells on the geologic structure; nor maintain an efficient oil-gas ratio and proper rate of flow. Of this the experience of the past year affords ample demonstration. In terms of conservation, even the proposed scheme to preserve the wells of settled production by pegging the price at the average cost of operation of such wells presents a dilemma. To maintain wells of settled production it would be necessary to curtail the flush wells below an efficient rate of flow, and this would stimulate competitive development in flush fields to build up higher relative potentials.

To achieve true conservation a fundamental reorganization of the entire system of production is imperative. Engineers are agreed that scientific production of an oil pool must be predicated upon the geologic structure and not upon fortuitous property lines. There are various legal plans to adapt production methods to the geologic structure; they have been summarized by the term "unit operation." The essential features from a conservation point of view of an equitable scientific plan of unit operation are the placement of wells by contour lines, the apportionment of the production according to boundary lines irrespective of the location of the wells through which production is secured, and the allocation of volume to acreage content. But even if scientific operation of oil pools is secured, paradoxically enough, an unrestrained program of mere scientific exploitation might so increase the supply of crude oil as to further demoralize the market. A demoralized market would force reckless competition between pools; flush fields would force the abandonment of the fields of settled production even though all were operating on a unit basis. Proration must be superimposed upon unit operation to prevent unrestrained flush production from leading to waste.

But proration affects price; proper exploitation to achieve conservation while not price fixing is inextricably linked with price. As the events of the past year demonstrate, the effects of proration on price, while initially attractive from the point of view of investment, defeats itself by stimulating exploration and discovery beyond the rate necessary to sustain the calculated production. Such new discovery disturbs the equilibrium of the price structure, compelling a further reduction in all proration quotas to the further detriment of capital investments. Stringent curtailment of allowables carries with it financial disaster because insufficient volume, even at a "fair price," nets insufficient income to meet fixed charges; and insufficient financial support in turn leads to inefficient equipment and operation, causing the very waste which conservation seeks to avoid. In order to avoid this dilemma, one more legal device must be added to secure planned production. "Projects for stabilization and proration must prove futile unless in some way, the equivalent of the certificate of public convenience and necessity is made a prerequisite to embarking new capital in an industry in which the capacity already exceeds the production schedules." There must be control of new drilling in proved-up fields and checks on the opening of new fields, not necessarily that price may be maintained, but that production may not increase beyond a point where it can be efficiently absorbed and used.

It has been the fashion to attribute most of the ills of the oil industry to the stupidity of property law; but the frantic race of speculators to discover new pools, heedless of market conditions, has not been the fault of the law. This is a fault line which runs through our entire economic structure. It is the problem of excess capacity. No plan of unit operation, no scheme of proration, no interstate compact can long insure the stabilization necessary for conservation unless some device is provided to control excess capacity.

Those who oppose proration assert that all "artificial attempts" to control "the natural operation of the law of supply and demand" have proved futile. They draw inspiration for these asservations from the unsuccessful attempts to fix prices in rubber, coffee, copper and wheat. But in these industries the attempt was made to peg price directly without adequate provision for controlling existing supply and preventing expansion of productive capacity which is otherwise stimulated by stabilized price. In oil, proration to market demand coupled with control of drilling prevents potential from becoming actual supply and restricts that supply by reference to some geological criteria to meet a demand based upon some use standard. And since price is a function of these two factors, inevitably conservation affects price. But the price range is a resultant of conservation and does not necessarily guarantee existing capital structures. Nor is proration necessarily a step in the socialization of all large scale industry. Those who urge that the oil industry should be taken over by the state fail as a rule to recognize the difficulties facing administrative bodies in operating the business. Indeed, proration by defining a plane of competition prevents the cut-throat practices and waste which might otherwise compel government ownership. And leaders of the industry have recognized that proration by preventing waste cuts down long-run costs and thus avoids future demand for out-and-out price fixing.

Price, Conservation and Control

There can be no pretense that such a comprehensive plan can be adopted by a single stroke. Reorganization of industry is won by hard fought advances against each entrenched position. Compromise offers brief armistice in the battle between competing vested interests. Only long range observation gives a picture of the whole line of battle and the ultimate objective. From an observation post, the immediate legislative programs embodied in existing proration statutes, the proposed uniform law and an interstate compact, appear as salients driven toward the objective of planned production.

The uniform law openly, and present proration laws implicitly, recognize the interrelation of price and waste, and the legal basis for control which that affords. The restrictions on the market set up by proration attempt to raise the plane of competition for individuals within a pool and for pools within a state by limiting the volume of production so that minimum price levels are maintained. This imperils the ordinary safeguard of the consumer—the protection allegedly given by free competition. State proration commissions have sought to supplant that protection by the exercise of their control over the market. And as a practical matter impartial control of state proration is as essential in the interest of the producers as in the interest of the consumers. Proration deals with markets, and in the quest for markets the industry is a house divided against itself. Royalty owners want high prices and high volume, and are willing to concede some sacrifice of price to volume; the small operators want high price and high volume, and are willing to concede some sacrifice of volume to price—the divergence of interest arising from the incidence of fixed charges. Large integrated operators want high price and low volume when their tank farms are full, but the reverse when there is empty storage; small integrated operators want low prices and high volume to fill their refining requirements from their own wells with low royalties. Large refiners want a stabilized high-price crude so that expensive, efficient refining equipment is necessary to realize a profit, and in this way they hope to freeze out the small competitor; the small refiners want low price crude so that with inefficient but inexpensive refining equipment, cheap crude will permit undercutting of the large refiners. The pipe lines want volume regardless of price. Material men and labor want competitive drilling. Major oil states want the present field protected; the newer oil states want exploration and discovery encouraged. Under the present system of ascertaining market demand of each pool by "nominations," control of proration is thrown into the hands of but a single group—the buyers. Conservation programs and price structures have toppled in part because of internal strife engendered in the industry by the partiality of those in control.

Fear the Antitrust Law

The oil states have realized that their market is demoralized not only because of internal strife but also because it is nationwide and proration by a single state results in a loss of that state's market. Consequently the Oil States Advisory Committee was created to control the national market by correlating the proration activities in the various states. But the unofficial, informal bargaining of the oil states through this committee has proved unsatisfactory to its sponsors. Because the sanctions are purely voluntary, there exists the ever-present threat that a state, confronted with tremendous flush production from new development, may be unable to withstand the internal pressure for outlets and will fail to adhere to the agreed quota. Furthermore although the quota agreements entered into by representatives of the states and agreed to in the large by the industry have been carefully clothed in innocent vocabulary to escape its clutches, nevertheless the fearsome though now somewhat emasculated Federal antitrust law lurks in the shadows. It is averred that the quotas are merely objective statements of existing demand and serve merely as proof of the accuracy of the arithmetic involved in compiling the nominations for each pool; and that when the sum total of nominations in a state tally with the quota "found" by the advisory committee, it is conclusively demonstrated that the "gauge of production" is working efficiently to eliminate "certain artificial friction" in the operation of "the law of supply and demand."

But despite this innocent rationale, the oil states are anxious to secure congressional approval of their combination to curtail production. They have therefore proposed the formal interstate compact between the producing states and have sponsored the bill in Congress to obtain the necessary Federal consent. Such consent would both satisfy the constitutional requirements and also remove the production of oil from the grasp of the antitrust law. The interstate compact would substitute the control of a hierarchy of state commission over the market for the control of free competition supported by the antitrust laws.

Proposed Interstate Compact

Proponents of the projected interstate compact assert that the hierarchy of state commissions, composed of a central agency which allocates quotas and the state commissions which translate the quotas into allowables, will "collectively exercise their police power in trust for the nation." But, if we must use the language of equity, good equity teaching tells us that in appointing trustees their possible adverse interest must be considered. Recent events show clearly that the oil states are primarily interested in higher prices to obtain higher royalties, higher taxes, and higher wages. The current price of crude, like the price of many other commodities may be much too low. But it is questionable whether the eight oil-producing states should be allowed the uncontrolled power of insuring their prosperity at the expense of consumers in the 48 states. While it is true that simple proration does not eliminate all competition, it defines a plane of competition, the level of which is

all important to the industrial and individual users of petroleum products throughout the nation.

The projected interstate compact represents an old political device used for a new economic purpose. This interstate compact partakes of the nature of an economic alliance between a group of interested states to control a national market rather than the usual agreement between contiguous states to settle some purely regional boundary or water dispute or carry out jointly some clear state function which is not circumscribed by the geographical boundaries of a single state, such as a tunnel or bridge project. Yet this does not mean that an interstate compact is not a proper or suitable legal means of attaining the nationwide control of oil markets which is so essential a feature of any rational program for achieving conservation. It only points to the necessity of assuring the consuming public sufficient Federal or other representation in that interstate commission which forecasts the national demand and allocates domestic and foreign quotas. The proposed interstate compact allegedly does provide such representation but a careful perusal of that bill indicates that Federal participation is largely for the purpose of pledging the national Government to restrict imports and that in settling both domestic and foreign quotas, the consumer's interest as contrasted with the interest of the oil states could be seriously out voted.

Legal Basis of Control

Methods of control of oil production on a national scale rest on different legal bases. Control by the states rests on the police power, indirectly controlled and co-ordinated by the nation through an interstate compact. Direct control and regulation by the Federal Government rests generally upon the commerce clause. Under either form of procedure the constitutional problems are not insolvable.

The use by the states of the police power to effect conservation has been amply exploited to indicate a sound constitutional basis for production control. In numerous cases the courts have recognized that restriction of production to prevent waste does not offend due process of law. True, some courts debated whether price is incident to waste or whether waste is incident to price—and indeed Mr. Justice Butler sought to settle the matter by "putting aside" the relationship—nevertheless it can be demonstrated that price effect can not be separated from true conservation, and it is futile to attempt to decide which of two concurrent results is primary. A national program of conservation divorced from price has little meaning. The country has vast resources, and the technology of production, refining, and use is constantly advancing. The problem is not that of obtaining oil at any cost, but of having it at a low cost over as long a period as practical.

The decisions sustaining the power to conserve oil furnish ample justification for control to achieve this end so long as the methods employed are impartial and not arbitrary. Narrowly construed, even the MacMillan and the People's Petroleum cases hold merely that the legislature had not as yet empowered the state commission to prorate to market demand. The only other cases in which proration orders have been invalidated did not deny the power to prorate to market demand but took objection to the inequitable and arbitrary exercise of the power.

The opinion in the Champlin case provides the only stumbling block in the way of sustaining control by states. As has already been pointed out, in that case there is the implication that if a price effect were demonstrated, proration orders might be enjoined. In the immediate future the cases will probably revolve around attempts to prove particular methods of proration "unjust or arbitrary"; and since the Champlin decision links "otherwise invalid" with "unjust or arbitrary" there may be attempts to assimilate price effect into arbitrary action. But since price and conservation are so interlinked such attempts seem doomed to failure.

However, the proration programs of the oil states threaten to break down because of the administrative difficulties of enforcement. The present methods have proved onerous upon the operators, expensive and unwieldly, and have not succeeded in stopping the flow of bootleg oil. Although unitization has long been advocated as the only efficient means of preventing the major wastes of production, it now appears equally essential to achieve effective administration of proration. Unit operation provides self-governing pools. In unitized fields the state need no longer police each well. It would only be required to co-ordinate the pools within a state. And since unit operation connotes lower capital costs and fair apportionment of production among producing properties, it minimizes the temptation to bootleg and drys up the source of hot oil. Without some such self-regulatory device, the proration programs of the states are both politically and practically unworkable.

Voluntary unitization has been counseled as the means by which "the difficulties may be adjusted by covenant." But the experience of the past years indicates clearly that the divergent interests of potential covenantors prevent such adjustments by voluntary action. Compulsory unit operation by command of the state is necessary not to enable the state to enter the oil business but to create internal self-government within the pools. Since unit operation affords the most practical means of administering proration, further legal justification for compulsion is thus provided.

But even if the oil states take the necessary steps to plan statewide production by proration, unitization, and control of drilling, co-ordination of state action is essential to prevent uncontrolled interstate competition which would ultimately force a breakdown of the entire plan. Co-ordination is proposed through the interstate compact. Such a correlated state program may need and call upon Federal aid. In order to make effective local legislation which would be rendered nugatory unless co-ordinated through the commerce power with similar local legislation, the Federal Government might well stimulate enthusiasm for the interstate compact by prohibiting the shipment in interstate commerce of oil not produced in accordance with the terms of such a compact. If all the oil states can not agree to enter into such a compact, the Federal Government is in a position to make the compact binding with less than unanimous consent following the procedure adopted in the Hoover Dam project which was authorized by a compact between all but one of the interested parties.

Fear of extensive Federal participation has recently caused a noticeable cooling in the enthusiasm for an interstate compact. Indeed the chairman of the Texas Railroad Commission has openly assigned this as his reason for opposition to the compact and has taken a stand that oil production is a local matter which can best be handled by each state playing a lone hand. But neither Texas nor any other major producing state can transform a problem which has been proved to be national in scope into an issue of purely local significance. Furthermore, the alternatives presented to the producing states are not proration or no proration, a compact or no compact. Rather they must decide whether they will retain a voice in the control of production through proration coupled with an interstate compact or have the nation, through the Federal Government, superimpose that control.

But whether the oil states act in concert or not, they must expect eventual Federal provision for consumer protection. Proration plans which seek to restrict production to market demand run afoul of the antitrust laws. Where "price dominates trade between states," regulation of local business practices, themselves not a part of the stream of commerce but which directly affect the price of commodities moving in interstate trade, has been sustained. The Supreme Court has asserted that "if Congress deems certain recurring practices, though not really part of interstate commerce, likely to obstruct, restrain or burden it, it has the power to subject them to national supervision and restraint." Combinations or conspiracies in restraint of trade by producers do not escape the Federal law on the ground that their functions are not interstate in character; nor can they achieve immunity because a state aids or abets them in order to control local oil production.

The proposed interstate compact would take the conservation program out of the scope of the Federal antitrust law. But the oil states and the industry can not seriously expect the Federal Government naively to abdicate its power and duty to protect the consumer. Rather, we may expect to see in the near future a definite Federal policy for oil and other raw materials. Control of production such as is essential to a sound conservation policy will be permissive, but in order to obtain immunity from the existing Federal antitrust laws, approval of a projected conservation program will have to be obtained from a reconstituted Federal Trade Commission or some other designated Federal agency. This would effectively place the determination of supply and demand, and price, in impartial hands. To justify its decisions, such an agency would have to ground its findings on sound conservation policy. Demand would have to be gauged in terms of efficient use. Existing supply would have to be estimated according to objective engineering data on volume of production at a scientific rate of flow of the existing wells, with due regard to oil-gas ratios. More extensive exploitation of the known fields or the discovery and opening of new fields would have to depend upon whether the existing capacity production adequately fulfilled the demands of efficient users.

Matter of Federal Control

If the oil states do not avail themselves of the opportunity to reorganize production under state auspices, they may expect a definite drive for Federal control independent of the states. Legally such Federal control may be achieved by a variety of means. The national Government might proceed directly under the commerce power to regulate the transportation in interstate commerce of oil not produced according to a conservation plan which would include permits for development, compulsory unit operation, and proration. Our Congress might look beyond the physical stream of interstate commerce so as to regulate directly the production of oil. In lieu of the negative prohibitions of the antitrust acts to maintain competition, Congress might enact positive regulations of productive practices which affect interstate commerce. The interrelationship of conservation and the market is clear. Wasteful production can burden the consumer in the market as much as conspiracy and combination. The antitrust laws protect interstate commerce against the burden of the latter; positive regulation to achieve conservation would protect interstate commerce against the burden of waste. Constitutionally it is no more illogical to give the Federal Government control over conservation to protect the market than to give the state control over the market to protect conservation.

The country is already well committed to a policy of conservation of this natural resource. The proposals here made are merely the results of the logic of such a policy. That they will bother the professors of "free enterprise" is obvious. And any control of production by other standards would not be conservation but concessions to the vested interests in the production business. That such a program as here outlined may not guarantee the present investments in uneconomic wells is both painful and patent.

NEW DEAL SLOWS GOLF

FINDLAY, Ohio, June 26.—Back before the Government began to boss American business, railroad executives used to come to the annual golf party given here by O. D. Donnell, president of the Ohio Oil Co., fairly certain they could forget business cares for the day. But this year telegraph messengers were chasing the big business executives all over the Findlay Country Club to hand them messages about hurriedly arranged conferences to work out codes of fair competition, fix minimum wages, stake out sales territories and plan production quotas.

CALIFORNIA SALES LESS

State gasoline tax collections in California dropped from 113,958,000 gallons in May, 1932, to 109,747,000 gallons in May of this year, according to official figures released during the past week. Following is the comparative report for the major distributors in the State:

	May, 1933	May, 1932
Standard	21,571,000	24,360,000
Shell	13,850,000	15,808,000
Union	12,105,000	13,927,000
Associated	11,731,000	10,671,000
Richfield	7,296,000	9,603,000

DEATH OF C. B. McCLAFFERTY

C. B. McClafferty, veteran oil man in American and Asiatic oil fields, died in Ada, Okla., on June 20 and was buried in the same city after services held in St. Joseph's Catholic Church.

Mr. McClafferty was born in Butler, Pa., November 21, 1853, and had been engaged in the oil business from his youth until his retirement because of old age. He was 10 years in Rangoon Field in Upper Burma, India, and had been 22 years active in the fields in Mid-Continent states. Several nieces and nephews and one grand nephew, Joseph McClafferty of Tulsa, survive him.

Globe Oil & Refining Company Has Introduced Many Features in New McPherson Plant

By W. T. ZIEGENHAIN

The Globe Oil & Refining Co.'s new 10,000-bbl. plant at McPherson, Kans., typifies the aim in modern refinery design, because of its compactness, centrallized and simplified automatic control, and its relatively low cost with respect to initial investment and routine operation.

The plant is unique in that it combines in one unit, skimming, cracking, reforming and the vapor phase treatment of the cracked gasoline. A composite yield of 70 per cent motor fuel having an octane number of 68-70 is being made from the local Kansas crude, the product having unusually favorable color stability and low gum content. This has been accomplished by including with the combination Winkler-Koch cracking and reforming unit, a Lachman vapor phase treating system.

The plant is also producing a low endpoint, long burning kerosene, a low flash furnace oil, and several grades of fuel oil. The unit also includes a vacuum tower and auxiliary equipment for the manufacture of road oil.

In offering a description of the plant, only a general discussion of the combination unit, vaphor recovery system, stabilizer, power plant, loading racks, laboratory, etc., will be given here as they are tied into a well-balanced, flexible operating unit. For the purpose of clarity the accompanying flow chart has been prepared and should be referred to.

Combination Unit

At the present time, approximately 10,000 bbls. of 39 to 40 gravity crude, are being charged to the combination daily. Most of this crude is produced in the McPherson, Kansas, area by the Lario Oil & Gas Co., a subsidiary of the Globe Oil & Refining Co.

The characteristics of a typical sample of the crudes are given below:

Gravity, 39.1° A.P.I.

Per cent sulphur, 0.50.

From the field the crude is brought to the plant and stored in two 55,000-bbl. tanks on the refinery site. Because of the relatively short period the crude is in storage, an effective water settler has been included as part of the combination unit.

In tracing the flow of the crude, it will be seen to enter two exchangers where it picks up heat and then enters the water settling tank at about 260° F. At this temperature all water and salt settle out and the crude then enters the debutanizer.

Debutanizing Crude

Here, by means of a rather simple separation of the very volatile fractions from the rest of the crude, an 85 gravity unstabilized gasoline is taken overhead. The crude debutanizing system is maintained under a pressure of about 33 pounds and fractionation is controlled at the top of the tower, by use of the customary return of a portion of the condensed vapors.

The liquid product frm the debutanizer namely, the 85 gravity gasoline, is pumped to a storage tank, where it is picked up and subsequently processed through the light gasoline stabilizer.

The debutanized crude leaves this portion of the system at about 220° F., and is pumped through a closed preheating coil in the top of the vapor separator on the cracking side on its way to the crude oil flash tower.

It might be well to mention at this point, that all of the heat used in processing the crude is derived from the two cracking furnaces, except the small amount of heat supplied the Lachman process and the stripper towers, by superheated exhaust steam.

The heated (605° F.) debutanized crude enters the 9'x94' flash tower, to yield a 375° F. endpoint, 66 gravity, straightrun gasoline, as overhead, three side streams and a 22 gravity charging stock for the cracking system.

Crude Flash Tower

The crude flash tower is of conventional, bubble cap design, controlled by returning a portion of the condensed overhead. The temperature at the vapor outlet is maintained at about 225° F.

On the upper one of the three levels in the tower from which side streams are taken, a temperature of about 325° F. is obtained. This side stream, after passing through the stripper, provides a rather wide cut of naphtha, to be used as charging stock for the reforming unit, or be blended with the light straightrun gasoline to make middle bracket U. S. Motor gasoline. Approximately 5 per cent of the fresh crude is normally taken off at this point.

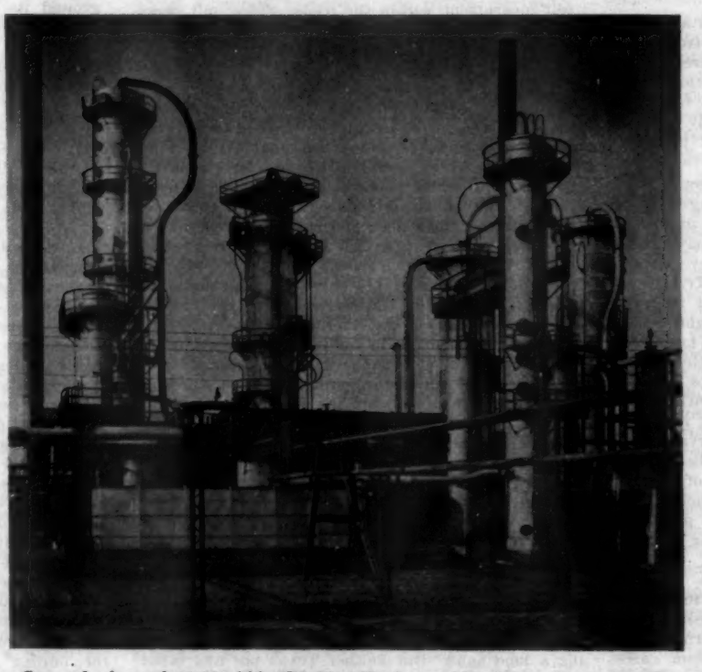
The naphtha which is to be reformed is accumulated in an insulated tank, and is pumped to the reforming coil in a manner to be discussed later.

The second side stream is taken off the flash tower at a temperature of about 450° F. This hot stream enters a stripper, along with steam, to produce a 525° F. endpoint, 42-43 gravity kerosene. This is taken to storage for sweetening, and a typical sample of the finished kerosene shows the following characteristics:

FINISHED KEROSENE	
Gravity, °A.P.I.	42.9
Flash, °F.	160
Color	29
Sulphur, %	.02
Distillation—	
Initial, °F.	384
Endpoint doctor, °F.	520

A yield of kerosene ranging from 5 to 13 per cent of the fresh crude has been made at times during the past three months, during which there has been an abnormally good demand and price with respect to other refinery products. In a small way this helps to indicate the flexibility of the operation of this part of the combination unit.

The third side stream is taken off at a relatively low point in the flash tower, and where the temperature is about 540° F. The hot side stream leaving the tower here, enters a stripper and the stream recovered off the bottom is a 35-36 gravity furnace oil. This stream, if not utilized as furnace oil, is used as a desirable cracking stock.



General view of 10,000-bbl. Winkler-Koch combination unit at the McPherson, Kans., plant of the Globe Oil and Refining Co.

The 22 gravity bottoms are withdrawn from the flash tower, at a temperature of about 580° F. and are pumped to the cracking system as a coolant, for each of the two hot oil streams coming from the furnaces.

Cracking System

Up to this point the procedure has been comparable to an ordinary modern skimming operation, except that all work done has been supplied in the form of waste heat from the two cracking furnaces.

Full application of this idea was made in the design of the Globe plant and has resulted in a substantial savings in the initial investment and low routine operating costs.

In this respect the Globe Oil & Refining Co.'s plant emphasizes the trend toward making the cracking unit the principal equipment in the refinery, around which all other processing equipment is built, the choice of the auxiliary equipment depending upon what products are to be manufactured.

As was stated previously, all direct heat is supplied by the two cracking furnaces. They are similar in construction. The tubes are set in quadruple headers and the oil passes through two tubes in parallel. The ends of part of the tubes, for a distance back of about 18 inches, are lined with 18-8 chromnickle alloy. Each furnace is fitted with a flue gas recirculating system, an economizer and stock temperatures between 490° and 600° F. are obtained in various operations.

The furnaces receive sufficiently different types of charging stocks and operate with enough difference in the outlet temperatures and pressures to permit calling one a cracking coil in the usual sense and the other a reforming coil.

The cracking coil is shown in the upper right-hand corner of the accompanying flow chart. It receives its charge in the form of a 20.5 gravity feed taken off the bottom of the main bubble tower of the cracking unit. This is an overhead product as it will be remembered that the fresh oil enters the cracking system as a coolant at the point in the transfer line where the hot oil from the furnace coils enters the vapor separator.

This 20.5 gravity oil, which is condensed out in the main bubble tower of the cracking unit is taken off at a pressure in the tower of about 46 pounds and at a temperature of about 605° F. A Worthington crank and flywheel type hot oil pump charges this oil through the cracking coil against a back pressure of about 770 pounds. The heated oil leaves this coil at a temperature of about 925° F. and under a pressure of 400 pounds.

Because only clean, overhead distillate reaches the cracking coil, and optimum conditions of temperature, pressure and time are obtained there is no accumulation of coke in any part of the system.

Reforming Coil

In the operation of the reforming coil, reference to the flow chart will show that it receives its charge from two sources. One of these is the straightrun naphtha off the crude flash tower and the other is a 25 gravity side stream off the main bubble tower. The latter is withdrawn at about 500° F. and by means of a Worthington crank and flywheel pump is charged along with the straightrun naphtha stream at a back pressure of about 690 pounds through a series of closed heating coils in the main bubble tower.

This mixture enters the preheating coil at about 390° F. and leaves at about 450° F. at which temperature it enters the reforming coil.

This mixture leaves the reforming coil at about 985° F., and at a pressure of 300 pounds. A controlled volume of the 22.3 gravity topped crude is introduced into the transfer line as a coolant just as is done in the case of the stream coming from the other cracking coil.

The two hot streams from the furnaces are joined and along with the fresh topped crude enter the vapor separator.

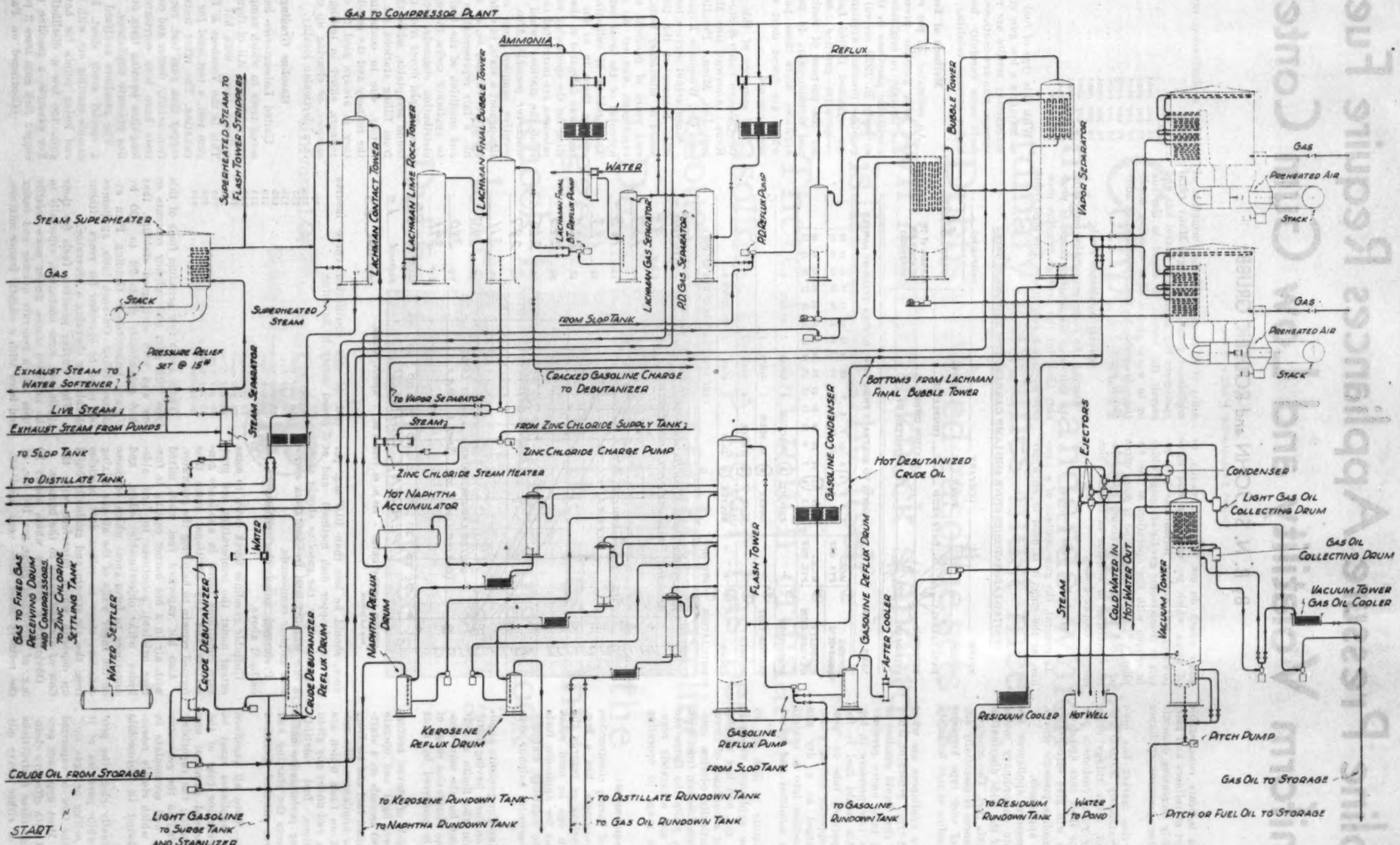
In the separator the pressure is maintained at about 47 pounds. The vapors leaving the separator are at a temperature of about 635° F. and enter the bubble tower for fractionation to endpoint distillate for treating.

In the lower part of the separator, the liquid body has a temperature of about 780° F. and use is made of the heat content of this residuum oil in its subsequent processing.

Vacuum Unit

This hot residuum is withdrawn to a unit which was designed to operate under

(Continued on Page 34)



Flow chart showing processing of crude through the debutanizer, flash tower, cracking coils, vacuum unit and cracked gasoline Lachman treater

Gasoline Pressure Appliances Require Fuels of Uniform Volatility and Low Gum Content

By R. N. St. JOHN and RODERIC GRUBB
United Laboratories, Wichita, Kans.

Recent inquiries indicate considerable interest on the part of refiners and marketers in the steadily increasing domestic market for gasoline pressure appliance fuels.

The extent of this market has been estimated at approximately 500,000 gallons per day, and, other things being about equal, many rural customers prefer to purchase for their cars and tractors, a fuel which will give satisfactory service in their gasoline pressure stoves, heaters and other appliances.

All gasoline pressure appliances are designed to operate on ordinary motor gasoline because of the wide distribution and low price of this fuel. The construction of these appliances is essentially different than that of wick type kerosene stoves in which gasoline cannot be safely burned.

Gasoline pressure appliances use what is called the "closed type" generator. They are so constructed that liquid gasoline is fed from the fuel tank under pressure of 5 to 20 pounds (air pressure in top of fuel tank). This liquid fuel is fed through a hot vaporizing tube or "generator" from the opposite end of which the fuel is discharged as a dry gas through a small orifice into a venturi tube where air is admitted and mixed with the gas.

This gas-air mixture is then fed to the burners of the appliance where it burns like natural gas, and like natural gas, has the distinct advantages of clean, smokeless and practically odorless combustion with complete freedom from wick or similar troubles, while the flame can be quickly, easily and accurately regulated over a wide range of operating heats.

Fuel Requirements

The above type of burner construction with its many advantages, has a few, rather broad, limitations as regards the type of fuel which can be used effectively. Specifications for appliance fuels cover, primarily, the volatility, stability, gum content and corrosive sulphur content of the fuels.

1. Volatility—Gasoline pressure appliances will operate on fuels having distillation ranges within the limits of 85° initial to 437 endpoint, but the more common summer gasoline distillation range of 105° to 400° F. is preferred by most appliance users.

Many recent models of stoves, heaters and other appliances, light and operate for the first 60 or 80 seconds on a starting mixture of atomized fuel and air from the fuel tank. These appliances, like motor cars, start best on fuels which are suited to the season, and under any given temperature conditions, fuel volatility affects their starting performance much the same as it affects the starting and the first two or three minutes' operation of motor cars.

2. Gum Content—Since all gasolines used in a pressure appliance must be vaporized in the generator tube of the appliance, any preformed gums or any gums which form during the vaporizing process are left behind in the generator where they dry out and accumulate in the form of carbon which closely resembles the carbon found in automobile cylinders.

This carbon gradually clogs the generator tube itself while particles of it lodge in the outlet orifice or "gas tip," and interfere with the flow of vaporized fuel to the burner. Most appliance generators are equipped with effective cleaner needles to dislodge these obstructions but large amounts of either heavy oily gums which do not dry out readily, or of gums which go very dry and leave powdery soft carbon formations both result in troublesome gas tip stoppage which interferes with the operation of the appliance. This last condition is more often produced by fuels containing considerable quantities of sulphur in forms which corrode copper dishes.

Permissible Gum Content

In general, the gum content of a gasoline, at the time it is used in an appliance, should be less than 10.0 m.g. per 100 c.c. (copper dish method), and at the same time, the gasoline should show a fair stability and freedom from corrosive sulphur compounds.

Preformed gums clog generators as outlined above.

Unstable gasolines break down to some extent under the temperature and pressure conditions found in appliance generators and any additional gums thus formed remain to help clog the generator.

Also hot vaporized fuel when mixed with air in a hot burner casting is further oxidized, sometimes to form aldehydes with objectionable odors, and sometimes to form gums which condense on the inner walls of the air-gas mixing chamber, there to collect dust particles from the air stream and gradually build up deposits which interefere with the flow of air and gases to the burners.

Obviously a gasoline which shows 10 m.g. of preformed gums per 100 c.c. at the refinery must have very good stability if it is to avoid the formation of additional gums in storage. Many rural customers buy gasoline in barrel lots and permit the barrels to stand in the sun or in warm places, thus creating conditions favorable to the formation of additional gums.

Special Appliance Fuels

During the summer months especially, the following distillation range is probably ideal for the average gasoline pressure appliance now in use. The high front end of this distillation curve insures added safety in handling.

	°F.
I.B.P.	115
10 per cent	155
20 per cent	175
30 per cent	195
40 per cent	210
50 per cent	225
60 per cent	240
70 per cent	255
80 per cent	270
90 per cent	300
95 per cent	325
Endpoint	350

There are a few premium fuels of this type with gum and sulphur contents so low and with such good stability, that they consistently grade 98 to 100 by United Laboratories Grading Plan explained below. On such fuels, appliances can often be operated for years without cleaning or changing a generator.

When buying premium fuels for their appliances, some customers, especially in the northern states, prefer more volatile fuels which generate quicker and easier and burn with a slightly leaner mixture, having a distillation range of approximately:

	°F
I.B.P.	110
10 per cent	140
20 per cent	150
30 per cent	160
40 per cent	170
50 per cent	180
60 per cent	190
70 per cent	200
80 per cent	210
90 per cent	225
95 per cent	240
Endpoint	265–300

With this type of fuel it is even easier to maintain a low gum content, and very satisfactory results are reported by consumers, who are cautioned to handle such fuels more carefully because of their higher average volatility.

Methods of Testing

An estimated 75 per cent of all troubles with gasoline pressure appliances was thought to originate in the use of unsuitable gasolines in those appliances, so early in 1929 several of the leading gasoline pressure appliance manufacturers organized United Laboratories as a co-operative gasoline testing laboratory for the purpose of testing motor fuels and recommending to gasoline pressure appliance users those particular brands which are found most satisfactory for appliance use.

The sponsors of this laboratory are the Coleman Lamp & Stove Co., Wichita, Kans.; American Gas Machine Co., Albert Lea, Minn.; Prentis-Wabers Products Co., Wisconsin Rapids, Wis.

Since actual service tests were impossible because of the time required, a series of laboratory tests, based on several years of previous observation and experience, was set up as a basis for approval of the most satisfactory fuels. The problem of collecting samples and sending them in to the laboratory for tests was delegated to the salesmen traveling for the sponsoring companies. These salesmen are instructed to obtain samples from the stations owned by the refiners whenever possible. Also, to collect consecutive samples from scattered points throughout a state, in order that the samples received may be, as nearly as possible, a fair representation of the quality and condition of the fuel as distributed to appliance users through the regular distribution channels. Occasionally samples shipped direct from the refinery are found acceptable, while the same brands from filling stations are found unsatisfactory, due to contamination between the refinery and the retailer. The laboratory is always glad to co-operate with refiners, either in testing and reporting samples, or clearing up cases of trouble in a particular locality.

Gasoline Grading Plan

United Laboratories have a series of seven tests to which samples of gasoline are subjected. All of them are standard refinery tests, with but one exception. This is the Voorhees & Eisinger oxygen gum test, a test used for stability determination. The other tests used are the copper dish gum test, corrosion, distillation, acidity, doctor and color tests. These tests have been correlated with actual long-time burning tests on various gasoline pressure appliances.

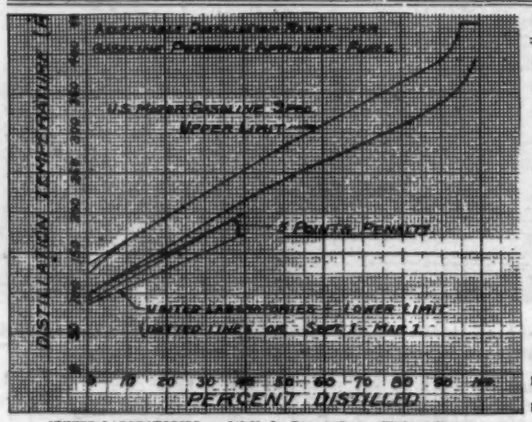
The gasolines analyzed are graded on a special grade sheet, Figure 1, each sample starting out with a grade of 100 and losing points for having too much gum, too low a distillation range, etc. For example, a gasoline with 3 mgs. of copper dish gum loses 3 points, one with

(Continued on Page 33)

UNITED LABORATORIES STOVE AND LAMP GASOLINE TEST AND GRADE SHEET

BRAND _____ COMPANY _____ SAMPLE NO. _____
STREET _____ TOWN _____ STATE _____
DATE TAKEN _____ DATE REC'D _____ COMPLETED _____
REFINERY _____ STATION OWNER _____
SALESMAN _____ EMPLOYED BY _____
GRADE 89 (Grades of 75 or above are acceptable)

NAME OF TEST		POINTS TO SUBTRACT FROM "100" TO FIND GRADE OF SAMPLE
(1) COPPER DISH GUM	MGS.- PTS. OFF	1 2 3 (4) 5 6 7 8 9 10 11 12 13 14 15 16 17 18 / 0 1 3 (6) 9 12 15 18 21 24 27 30 33 36 39 42 45 48
(2) STABILITY OXYGEN GUM	MGS.- PTS. OFF	8 10 (12) 14 16 18 20 22 24 26 28 30 32 34 36 38 40 / 1 3 (5) 7 9 11 13 15 17 19 21 23 25 27 29 31 33
(3) CORROSION	" "	BRIGHT (0) PEACOCK 1 GRAY 3 BLACK 5
(4) DOCTOR TEST	" "	SWEET (0) SL. SOUR 1 SOUR 3
(5) ACIDITY	" "	NONE (0) TRACE 1 ACID 2
(6) COLOR	" "	25 or BETTER (0) 22-20 3 18-19 4 17-DOWN 5
(7) DISTILLATION	PTS. OFF	0 (SEE DISTILLATION CURVE BELOW)


DISTILLATION TEMPERATURE DEGREES FAHRENHEIT
PERCENT DISTILLED
U.S. Motor Gasoline Specs.
Weber Limit
4 Point Penalty
United Laboratories - Lower Limit
(Dotted Lines Are Specs. Part)
10 20 30 40 50 60 70 80 90 100

DISTILLATION % OVER-TEMP. °F.

I.B.P.	94
12	133
22	163
32	193
42	220
52	243
62	265
72	287
82	311
92	345
97	380
E.P	391
RECOVERY	97%
RESIDUE	1%
DIST. LOSS	2%

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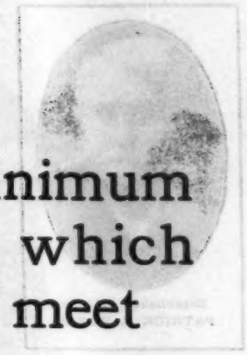

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There is too much ordinary gasoline—there never has been enough Dubbs cracked gasoline

Dubbs cracking makes the biggest yield of the best anti-knock from any charging stock at lowest cost—royalty and all

Dubbs cracking is wise

Universal Oil Products Co
Chicago, Illinois

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A Code With Teeth in It

Getting the marketers to agree upon a code of fair competition proved, as expected, a tougher job than getting an agreement among the producers.

That an agreement was finally reached, on all but one rule, was due to the spirit of the times. It was a fresh illustration of the widespread faith in the "new deal" and the remarkable readiness to submerge individual opinions to assure results.

The producers of crude have been trying for ten years to accomplish by voluntary action what the industrial recovery law now asks them to do. But there has been no such persistent effort so generally supported for effective stabilization in the marketing division.

There was, of course, the code of marketing ethics, largely signed and largely ignored. Those who set a good example simply found themselves being taken advantage of. Instead of being a model they were made a mark.

With that sort of background the fact that an agreement was reached at Chicago is all the more significant. For this time the code as finally approved at Washington will not be left a dead letter; it will be enforced by all the power of the law.

It may be asked what magic worked this wonder in co-operation. The same that has led leaders of industry and the public at large to accept the recovery act as perhaps the one way out of the depression. That and the fear that if it was not tried government might take more drastic control. The Chicago conference was reminded of this possibility very forcefully.

But no less influential in securing an accord was the tact and goodwill that characterized the meeting.

A thoroughly representative conference in which all elements were present, there was no hint of dominance. There was freest and frankest liberty of discussion for every sort of view. The American Petroleum Institute, though the national organization of the industry, had but one vote, the same as the smallest delegation.

Those attending were speedily convinced that there was but one thought uppermost—agreement upon a code of fair competition that would be satisfactory to the great body of refiners and marketers and that would be acceptable to the government.

On the one point where irreconcilable differences existed—the lease and agency provision—a dual rule was drafted, representing each viewpoint. This also will no doubt be ironed out before the code is put into effect.

In this case as in all others it was recognized that it was an honest difference of opinion and in no sense an attempt to put anything over.

It was this absence of animosity and suspicion of ulterior purpose which have so often marred similar conferences that made this one so remarkable and successful.

In this respect it was the most hopeful conference the oil industry has ever held. It proved that refiners and marketers could be got to see a common interest just as crude producers have done. It showed they could sink old prejudices and drop old suspicions when convinced they were being given a fair show.

On the other hand, major organizations which may have had little reason to trust the good faith of some competitors showed themselves willing to forget the past and co-operate on a new deal.

It was realized that when the new code goes into effect the government will be there to see that it is respected and that the only hope of obtaining the results sought will be through scrupulous observance of its provisions.

Success or failure of the experiment will depend entirely upon the motive with which the various units in the industry enter upon it. Judging by the Chicago conference and the good feeling and earnestness there displayed the petroleum industry, both as regards producers and refiners and marketers, sincerely intends to give it a fair chance.

Should there be any who hope to evade it experience will probably soon convince them that it will be better to go along, both as a measure of present policy and in order to avert more stringent control if this fails.

These coming two years are going to determine the future of the oil industry in the United States. Whatever may be the result in other industries it is reasonably certain that government having once taken such interest in the operations of the oil business will not relax control over this invaluable natural resource.

If the industry proves that, under the code of fair competition, it can solve its problems all will be well. If that attempt breaks down or it is found that dissension in the oil industry makes co-operation impracticable then Congress may be expected to take a hand.

And the industry may find Congress much less reasonable than a President who prefers that industry police itself rather than force a Federal dictatorship.

Happily, the excellent beginning made at Chicago promises honest co-operation in working the new code. With that attitude of mind it will be the easier to enlist the vigilance and aggressive support of the industry in policing the industry against cheaters and bootleggers.

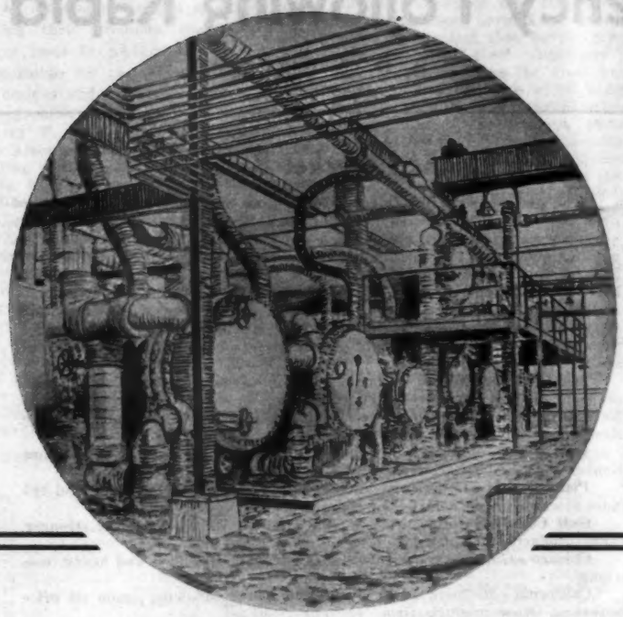
Because that is what will be required if the plan is to succeed. It will need the active support of opinion both within and outside the industry. So far as moral suasion is required, short of invoking the licensing clause which it is understood the administration hopes to avoid, violators must not be condoned or ignored. They must be made to feel the weight of general resentment as did the slacker in war times.

General Johnson has made reference to use of insignia the absence of which would not be popular, perhaps a hint at one way of bringing public pressure to bear upon those who fail to obey the code.

In the present condition of the popular mind, with the marked determination to demand support of the President's policies, the oil industry itself, individually, cannot be less energetic in seeing that the new code, when approved, is obeyed.

There has never been any doubt that the industry could deal with its problems if given a free hand. It has been handicapped by fear of antiquated statutes which are now suspended.

The Chicago conference showed, for the first time, a united determination to act on a practical program. If the industry proves it can run its own business it will enter a new era. If it fails it will be its own fault. Chicago encourages the belief that it will not fail.



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Oklahoma Motor Fuel Market Shows Leveling Out Tendency Following Rapid Advances

By C. O. WILLSON

The rapid upturn in prices for all grades of refinery and natural gasolines which featured the Oklahoma (Group 3) market over a three weeks' period was stopped the first of the week and the entire market showed a tendency to flatten out. There were no indications on Tuesday that a reactionary price trend of any importance was to develop. Most of the trade interpreted the market lull as a logical development having corrective features which would place the entire market on sounder basis to support additional advances later.

While prices were advancing rapidly starting early in June there was the usual tendency on the part of several refiners selling on the spot market to restrict their offerings of gasoline and other products in order to secure the benefits of the higher prices. Starting the latter part of last week some of these refiners increased their offerings and in the case of low octane gasolines the first of the week there were several sellers in East Texas and other points selling on an Oklahoma basis who were anxious to secure immediate business. As a result, the Oklahoma (Group 3) quotations for low octane U. S. Motor gasoline in sales to the trade continued at a low of 3¾ cents with some material offered under this price in East Texas. At the same time Oklahoma refiners had many inquiries for middle and top octane gasoline and the prices ranging from 4⅝ to 5 cents for these two grades established last week were being maintained.

Buyers who have had difficulty in securing quotations from refiners on the various grades of distillate, industrial fuels and gas oils, also reported that material was more freely offered the first of the week. Most of these offerings, however, were coming from East Texas refiners and the Oklahoma and Kansas prices on some of these products were higher than they were a week ago.

Refined Market Barometer

The general trend in refinery gasoline tank car prices continued upward over the past week throughout the United States. Some of the greatest advances materialized in areas which previously had made little change in gasoline quotations for a period of several weeks. Reports indicated a heavy gasoline consumption was under way. A firmer tone also was reported in heavy fuels during the week and it was predicted that price advances would materialize in the near future. Distillates and kerosenes were generally strong and prices either firm or advancing in the several refining groups. Steam refined stocks and bright stocks were advanced in practically all areas. Wax continued strong.

Mid-Continent—More refinery gasoline of low octane available and prices unchanged from week ago. Higher octane material in strong demand. Natural gasolines higher than week ago. Some grades of distillates advance. Kerosene steady. Bright stock prices higher.

East Coast—All grades of gasoline advance. Cylinder stocks higher. Bunker fuels and Diesel fuels strong and higher prices expected.

Pennsylvania—General advance applying to gasoline, kerosene and cylinder stocks. Strong demand for these products.

Gulf Coast—Gasoline prices advance rapidly. Kerosene price stronger. Other products unchanged.

Chicago—Gasoline market continues advance. Distillate and heavy fuels strong.

California—Refiners advance gasoline prices following crude oil price increases. Other products firm.

Several Developments

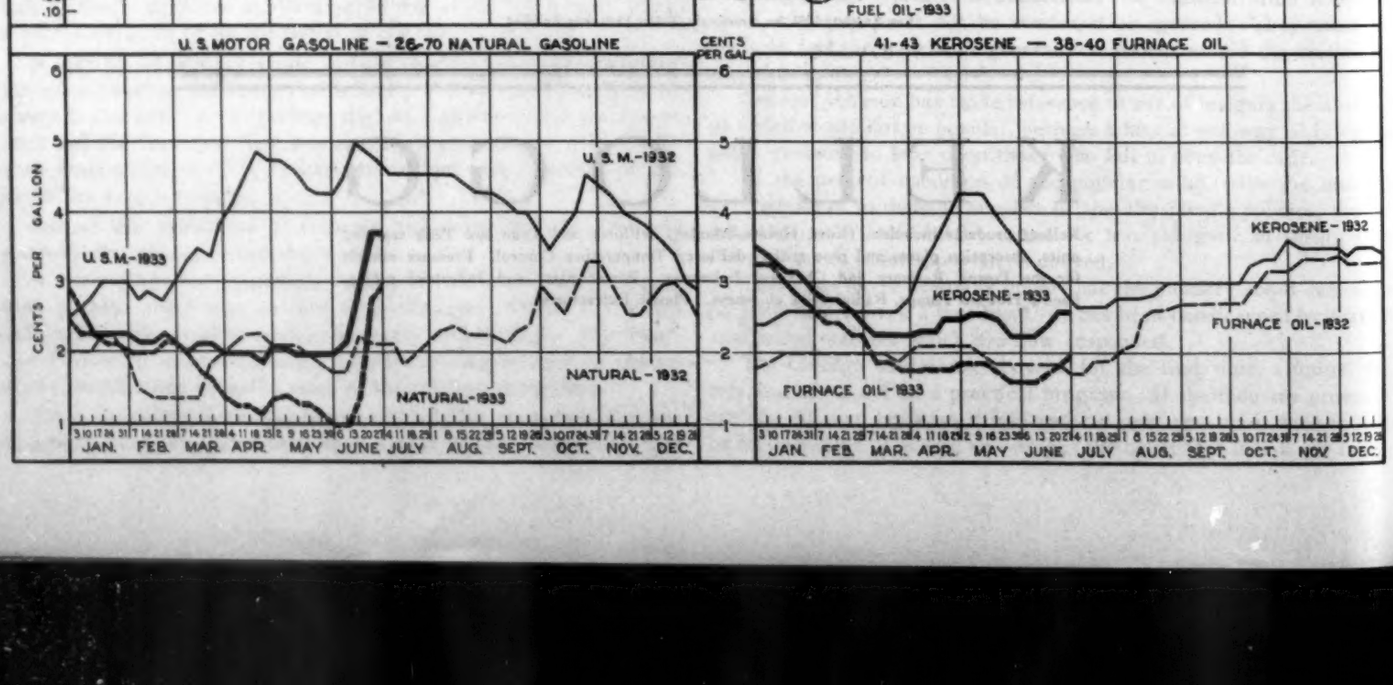
In explanation of the markets of the past few days and probable future trends, observers were pointing to several interesting developments of the past week. The failure of the third grade (low octane) U. S. Motor gasoline to pass the 4-cent level as predicted by many last week reflects a condition that will continue to have importance in future markets, according to these observers. The bulk of the gasoline available on the spot market in Oklahoma and the Mid-Continent generally is now classed as third grade. The April action of sellers in raising the third grade classification from under 57 octane to 59 and below and the adoption of the new C.F.R. Motor Test as the method of testing greatly increased the quantity of Mid-Continent gasoline coming within the third grade classification. Several East Texas refiners and those in other sections of the Mid-Continent who formerly had gasoline belonging to the second or regular grade are now offering third grade material.

On the consuming side the recent action of the Standard Oil Co. (Indiana) in reducing the retail price spread between the third and regular grades to 1 cent has tended to increase the demand for the regular grade and lessen the third grade gallonage. Similar action has been taken by major distributors in the Southwest, Rocky Mountain states and several other sections of the country. Many consumers who will buy the third grade when it is 1.5 to 3 cents under the regular grade price prefer the regular grade when the differential is reduced to 1 cent. The fact that several of the major and semimajor distributors are now ethylizing their regular gasoline under a "Q" brand license also has tended to increase the consumer acceptance of their house brand grade. The octane ratings of these latter grades range from 66 to 70 under the C.F.R. Motor Test, according to tests made over the past two weeks.

Restrict Third Grade

The net result is to restrict the market for the third grade and some observors see in this development a condition which will tend to prevent any future advances in the general motor fuel market. This situation if it continues might also postpone additional advances in posted crude oil schedules. The third grade gasoline has a more direct relationship to crude prices than do the regular and premium grades. The latter are obtained largely through improved manufacturing operations of the use of tetraethyl lead, while the third grade to a large extent is the product secured from the crude oil by simple distillation. Obviously a "home" must be found for this grade material or it will find a home of its own at distress

Representative Mid-Continent Quotations on Crude Oil and Refined Products Basis Oklahoma (Group 3)



prices which will have a direct bearing on the market for the regular and premium grades.

Due to this situation some are advocating a return to a differential of two or more cents in retail prices between the regular and third grades to improve the demand. One suggested remedy would create a buying agency in which large and small distributors would participate and the distress material would be removed from the spot tank car market as it becomes available. Still another suggestion would limit the production of this third grade material under the authority of the Federal Government, which is now preparing to supervise the operations of the entire industry. Under this plan the production of the third grade material would be restricted to the demand as determined by consumers paying 1 cent per gallon under the prices posted for the regular grades. Such a suggestion would not have been taken seriously a few weeks ago but now under the authority granted by the National Industrial Recovery law there are those in the trade who see an extension of Federal control of operations and prices to the point not considered possible previous to the conception and passage of the new law. In regard to the Federal control of gasoline production, it is contended that any program must take into consideration the differences in specifications which in turn are reflected in the market demand.

Bright Stock Advance

The 150-160, zero bright stock will be advanced from 18¾ to 19¼ cents per gallon exclusive of leading Oklahoma manufacturers effective June 28. Neutral oils will be advanced 1 cent per gallon on same date. These prices not carried on price tables of this issue which cover all changes up to and including Tuesday, June 27.

In this connection the code approved by the refiners and marketers at the Chicago meeting last week is receiving consideration as to its possible market importance. The code, which is published complete elsewhere in this issue, did not go as far as many expected in regard to provisions having to do with prices, but on the whole is being accepted favorably by those who believe that stabilization of all markets will shortly be accomplished under government supervision.

Another development of importance in Oklahoma was the increased allowable in Oklahoma crude production. The recent improvement in Mid-Continent crude oil prices was largely due to the restriction of crude supplies in Oklahoma and Kansas which failed to meet the requirements of local refiners and large pipe line buyers. Whether the additional allowable will be sufficient to cover requirements remains to be seen and market observers are watching this situation because of its direct relationship to future crude oil prices. Many of the trade are predicting a quick advance in Mid-Continent crude prices to a $1 level, while others are equally confident that further increases will await the working out of a proration program under Federal supervision with adequate assurance that it will be enforced so bootleg supplies will not be available. In this connection the increase in Oklahoma City production has made it possible for several skimming plants in that field to resume operations and their gasoline and other products are now being made available on the spot market.

Gasoline and Naphtha

Offers as high as 4¾ cents per gallon were reported in the Oklahoma market the first of the week for U. S. Motor and 60-62 400 endpoint gasolines having a minimum octane rating of 65. These offers were coming from refiners who are short in their requirements for gasoline which can be retailed as their regular house brand grade. The refiners were paying as high as 4⅝ cents for middle octane material the lowest price for which was 4⅜ cents. The premiums being paid for these higher octane grades is causing refiners to operate their cracking equipment at capacity. Additional refiners also are making preparations to secure "Q" brand licenses which will permit them to secure the higher octane grades by using the tetraethyl lead. It is pointed out that the availability of this chemical to use with regular grade motor fuels will limit the spreads in the tank car prices between the third and regular grades. Licensees are permitted to use up to 1½ c.c. of this lead at a cost of .35 cent per c.c. Thus, for a cost of around 1 cent per gallon refiners can add from 10 to 15 points to the octane rating of their gasolines and bring third grade material to a regular or premium rating.

East Texas low octane motor gasoline was offered the first of the week direct to the trade over a price range of 3½ to 3¾ cents. The low of the Oklahoma market was 3¾ cents. Aside from the general situation previously explained the outlets for Mid-Continent third grade gasoline were being restricted by the failure of competitive areas to advance prices. The Gulf Coast and Pennsylvania markets have been lagging behind the Mid-Continent market and this has tended to limit sales. Advances, however, in these areas materialized the first of the week and this may aid the East Texas situation before the end of the week.

Quotations on the higher gravity and lower endpoint gasolines are largely nominal. Trading is confined to sales in which

(Continued on Page 32)

Burner Manufacturers Condemn Practice of Oil Companies Giving Free Service

CHICAGO, June 24.—The practice of oil burner and range unit manufacturers selling their products unassembled at lower costs to jobbers and retailers is responsible for the widespread pirating of designs and cutthroat competition by irresponsible manufacturers, according to Harry F. Tapp, executive secretary of the American Oil Burner Association, in setting forth a list of practices which have been demoralizing the oil burner business for several years. Among other evils which must be corrected, Mr. Tapp said, is the policy of oil companies in giving free burner service to their oil customers, and their participation in the burner business to the extent of sponsoring the products of a burner manufacturer who is willing to reciprocate with oil recommendations.

In this connection the Chicago Burning Oil Distributors Association ruled against the engagement for selling purposes, either by salary or by commissions, any individual or organization engaged in the sale of oil burners or accessories. It is generally contended that the oil burner business has been harmed and greatly retarded by the fact that burner salesmen have "run down" their competitors' products by stating that the rival burners could use only one type of oil and were excessively critical on specifications of fuels. None of the burners, naturally, escaped this sort of criticism with the result that all came under suspicion of unreliability. Within a few days the code of fair marketing practices developed at the recent meeting of the association in Chicago will be passed upon by Gen. Hugh Johnson, administrator under the National Industrial Recovery Act, and the provisions will be made known to the public.

The following tables prepared by the association from data obtained from the U. S. Bureau of Mines and the Bureau of the Census, show the increasing use of different types of oil burners since 1921, and the rise in burning oil consumption due to this increase:

TABLE 1—*ESTIMATED ANNUAL DOMESTIC HEATING OIL CONSUMPTION AND NUMBER OF BURNERS IN USE

Year	Mechanical draft: Oil	Mechanical draft: Burners	Natural draft: Oil	Natural draft: Burners	Total oil	Total burners	Burner sale
1921	300,000	5,000	300,000	7,500	600,000	12,500	9,100
1922	540,000	9,000	500,000	12,500	1,040,000	21,500	38,900
1923	1,410,000	23,500	1,410,000	35,300	2,820,000	58,800	43,900
1924	2,840,000	47,300	2,180,000	54,500	5,020,000	101,800	85,000
1925	4,700,000	78,500	4,130,000	103,000	8,830,000	181,500	50,000
1926	6,820,000	113,000	2,895,000	72,375	9,715,000	186,375	75,900
1927	10,600,000	177,000	2,250,000	56,250	12,850,000	233,250	81,000
1928	14,340,000	239,000	2,863,000	71,575	17,203,000	310,575	110,000
1929	19,499,000	324,980	3,648,000	91,200	23,147,000	416,180	119,900
1930	24,930,000	416,200	4,600,000	115,000	29,530,000	531,200	118,650
1931	30,300,000	505,700	5,490,000	137,500	35,790,000	643,100	94,675
1932	34,800,000	581,900	6,040,000	151,200	40,840,000	733,100	77,956
1933	.....	642,500	.....	164,700	.....	811,050	.....

TABLE 2—ESTIMATED ANNUAL COMMERCIAL HEATING OIL CONSUMPTION

Year	Total fuel oils (bbls.)	Number installations	Year	Total fuel oils (bbls.)	Number installations
1926	12,000,000	24,000	1929	18,200,000	36,400
1926	13,875,000	27,800	1930	19,000,000	38,000
1927	15,750,000	31,500	1931	20,100,000	40,200
1928	16,704,000	33,400	1932	20,850,000	41,700

*Data in 42 gallon barrels.

American Petroleum Institute Weekly Refinery Statistics

Figures below reported for week by American Petroleum Institute. (1) Per cent refinery capacity represented. (2) Daily average crude runs to stills. (3) Total motor fuel stocks. (4) Gas oil and fuel oil stocks. All figures in 42-gallon barrels.

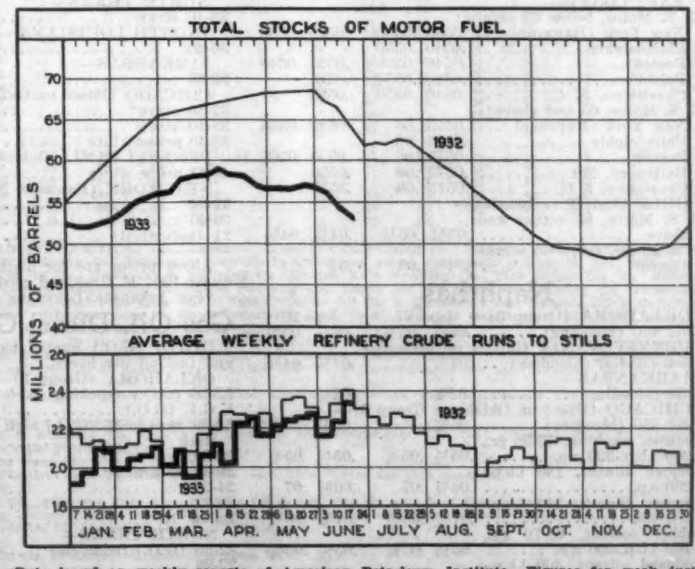
Week Ending June 24, 1933, Compared to Week Ago

	Week ending June 24, 1933 (1)	(2)	(3)	(4)	Week Ending June 17, 1933 (1)	(2)	(3)	(4)
East Coast	100.0	488,000	15,476,000	7,150,000	99.1	489,000	15,703,000	7,176,000
Appalachian	92.6	87,000	1,943,000	905,000	95.0	91,000	1,982,000	862,000
Ind., Ill., Ky.	97.3	348,000	7,464,000	4,004,000	97.5	328,000	7,516,000	3,978,000
Okla., Kans., Mo.	81.8	238,000	4,528,000	3,322,000	84.9	244,000	4,596,000	3,631,000
Inland Texas	58.3	90,000	1,394,000	2,248,000	56.4	95,000	1,485,000	2,179,000
Texas Gulf	98.0	430,000	6,157,000	6,487,000	97.7	445,000	6,631,000	6,239,000
Louisiana Gulf	100.0	116,000	1,456,000	2,051,000	97.3	113,000	1,650,000	1,900,000
N. La. and Ark.	92.6	45,000	252,000	534,000	88.5	43,000	247,000	530,000
Rocky Mtn.	73.1	45,000	1,141,000	717,000	90.5	45,000	1,159,000	686,000
California	96.9	475,000	13,506,000	98,640,000	94.6	438,000	12,602,000	98,537,000
Total U. S.	92.0	2,362,000	53,317,000	126,058,000	91.6	2,344,000	53,579,000	125,463,000

Total motor fuel stocks, Bureau of Mines basis, 55,190,000 bbls.

Week Ending June 24, 1933, Compared to Year Ago

	Week ending June 24, 1933 (1)	(2)	(3)	(4)	Week Ending June 25, 1932 (1)	(2)	(3)	(4)
East Coast	100.0	488,000	15,476,000	7,150,000	100.0	498,000	19,244,000	7,199,000
Appalachian	92.6	87,000	1,943,000	905,000	91.8	101,300	2,304,000	1,075,000
Ind., Ill., Ky.	97.3	348,000	7,464,000	4,004,000	98.9	390,500	8,058,000	4,139,000
Okla., Kans., Mo.	81.8	238,000	4,528,000	3,322,000	89.6	217,600	5,096,000	3,402,000
Inland Texas	58.3	90,000	1,394,000	2,248,000	....	106,800	1,753,000	2,554,000
Texas Gulf	98.0	430,000	6,157,000	6,487,000	99.3	420,600	5,856,000	7,425,000
Louisiana Gulf	100.0	116,000	1,456,000	2,051,000	100.0	109,500	1,527,000	4,375,000
N. La. and Ark.	92.6	45,000	252,000	534,000	....	50,700	196,000	774,000
Rocky Mtn.	73.1	45,000	1,141,000	717,000	89.4	85,300	1,843,000	683,000
California	96.9	475,000	13,506,000	98,640,000	96.7	481,300	16,091,000	98,232,000
Total U. S.	92.0	2,362,000	53,317,000	126,058,000	95.1	2,312,000	61,972,000	129,864,000



Data based on weekly reports of American Petroleum Institute. Figures for week just ended not shown in graph but are included in accompanying table

REFINERY AND CRUDE PRICES

Quotations on refined products are for interstate or export movement except as otherwise noted

EXCLUSIVE OF TAXES

The following quotations are exclusive of the Federal excise taxes of 1½ cents a gallon on gasoline and 4 cents on lubricating oils, which became effective June 17, 1933.

Refinery Gasolines

	June 27		June 20	
OKLAHOMA (Group 3)—				
*U. S. Motor grades:				
Regular	.04⅜	.04⅝	.04	.04¼
Premium	.04⅝	.04¾	.04¼	.04½
Third grade	.03¾	.04	.03¾	.04
60-62 400 grades:				
Regular	.04½	.04⅝	.04⅛	.04⅜
Premium	.04⅝		.04⅜	.04½
Third grade	.03⅞	.04	.03⅞	.04
64-66 390	.04⅜	.04½	.04	.04⅛
64-66 375	.04½	.04⅝	.04⅛	.04¼
68-70 350	.04½	.04⅝	.04¼	.04½
NORTH TEXAS—				
U. S. Motor grades:				
Regular	.04⅜	.04½	.04	
Premium	.04⅝	.04¾	.04¼	
Third grade	.03¾	.04	.03¾	.04
60-62 400	.04	.04¼	.03⅞	.04
64-66 390	.04⅛	.04¼	.04	.04⅛
64-66 375	.04¼	.04½	.04⅛	.04¼
64-66 360	.04½	.04¾	.04¼	.04½
†NORTH LOUISIANA—				
U. S. Motor grades:				
Regular	.04¼	.04½	.04⅛	.04¼
Premium	.04½	.04¾	.04¼	.04½
Third grade	.04	.04¼	.03⅞	.04
60-62 400	.04⅛	.04¼	.03⅞	.04
†ARKANSAS—				
U. S. Motor grades:				
Regular	.04¼		.04	.04¼
Premium	.04½	.04¾	.04¼	.04½
Third grade	.04		.03¾	.04
CHICAGO (Based on Oklahoma Group 3)—				
U. S. Motor grades:				
Regular	.04½	.04⅝	.04	
Premium	.04⅝	.04¾	.04¼	
Third grade	.04	.04¼	.03⅞	
60-62 400	.04⅛	.04⅜	.03⅞	
64-66 375	.04¼	.04½	.04	
68-70 360	.04⅜	.04⅝	.04⅛	
Aviation fighting grade	.04½	.04¾	.04¼	

*Octane Ratings—The following octane ratings apply to the three grades of U. S. Motor gasoline: Regular 60-64 octane number; premium, 65 and above octane number; third grade, 59 and below octane number. Octane ratings determined by C.F.R. Motor Method.

†For Arkansas, Louisiana and Mississippi delivery.

PENNSYLVANIA (inland refineries)—				
U. S. Motor	.05	.05¼	.04¾	.05
60-62 400	.05¼	.05½	.04⅞	.05⅛
64-66 375	.05½		.05	.05¼
68-70 350	.05½	.05¾	.05¼	.05½
CALIFORNIA (domestic movement)—				
54-58 U. S. Motor	.05½	.06½	.05½	.06½
58-60 400	.06	.06¾	.06	.06¾
EAST COAST—				
U. S. Motor, below 65 octane:				
New York (Bayonne)	.0540	.0550	.0525	.0535
Philadelphia	.0540	.0550		
Boston	.0540	.0550	.0525	.0540
Baltimore	.0540	.0550	.0525	
Charleston, S. C.	.0540	.0550	.0525	
U. S. Motor, 65 and above:				
New York (Bayonne)	.0575	.06	.0550	.0565
Philadelphia	.0575	.06		
Boston	.0575	.06	.0550	.0565
Baltimore, Md.	.0575	.06	.0550	
Charleston, S. C.	.0575	.06	.0550	
GULF COAST (domestic)—				
U. S. Motor, 65 octane and above	.05⅛	.05¼	.04¼	.04½
U. S. Motor, below 65 octane number	.04⅞	.05	.04	

Naphthas

	June 27		June 20	
OKLAHOMA (Group 3)—				
50-52 450 (blending)	.03⅛	.03⅜	.03½	.03¾
PENNSYLVANIA (inland refineries)—				
50-54 430-450 (blending)	.04⅜		.04½	.04¾
†ARKANSAS—				
48-50 (blending)	.03¾		.03½	
CHICAGO (Based on Oklahoma Group 3)—				
50-52 450 (blending)	.03¾		.03¾	
Cleaners' naphtha, 56-58 gr., 200 i.b.p.-320 e.p.	.05½	.05¾	.05½	.05¾
Lacquer diluent, 180 i.b.p.-250 e.p.	.06¾	.07	.06¾	.07
Lacquer diluent, 140 i.b.p.-200 e.p.	.07⅜	.08¼	.07⅜	.08¼
Rubber solvent, 68-70 gr., 100 i.b.p.-300 e.p.	.05⅛	.05⅜	.05½	.05⅝
Stoddard solvent, 300 i.b.p.-410 e.p., over 83° flash	.05	.05¼	.05	.05¼
Pet. thinner, 290-300 i.b.p.-415 e.p., over 83° flash	.04¾	.05	.04¾	.05
V.M.&P. naphtha, 56-58 gr., 190-200 i.b.p.-330 e.p.	.05¼	.05½	.05¼	.05½
Petroleum spirits	.04¼	.04½	.04¼	.04½

Natural Gasolines

	June 27		June 20	
OKLAHOMA (Group 3)—				
Grade 18-55	.03⅛	.03¼	.03	.03¼
Grade 26-70	.03		.02¾	
Grade 30-70	.02⅞		.02⅝	
*Low pressure grades:				
15 lb. v.p. (max.)	.03¼	.03⅜	.03¼	.03½
11 lb. v.p. (max.)	.03⅜	.03½	.03½	
NORTH TEXAS—				
Grade 18-55	.03⅛		.03	
Grade 26-70	.02½	.03	.02⅝	.02¾
Grade 30-70	.02⅞		.02⅝	
*Low pressure grades:				
15 lb. v.p. (max.)	.03¼		.03	.03¼
11 lb. v.p. (max.)	.03⅜		.03¼	.03½
NORTH LOUISIANA—				
Grade 26-70	.03¼		.02¾	
CALIFORNIA—				
75-78 375	.03¾	.04½	.03¾	.04¼

Kerosenes

(All kerosenes water white)

	June 27		June 20	
OKLAHOMA (Group 3)—				
41-43	.02⅝	.02¾	.02⅝	.02⅝
42-44	.02¾	.03	.02⅝	.03
NORTH TEXAS—				
40-41	.02½		.02½	
41-43	.02½	.02⅝	.02½	.02⅝
†NORTH LOUISIANA—				
41-43	.03		.03	
42-44	.03¼		.03¼	
†ARKANSAS—				
41-43	.03		.03	
PENNSYLVANIA (inland refineries)—				
45	.04¼	.04⅜	.04	
46	.04½		.04⅜	
47	.04⅝		.04⅝	
CHICAGO (Based on Oklahoma Group 3)—				
41-43	.02¾	.02⅞	.02½	.02¾
42-44	.02⅞	.03	.02¾	.03
*CALIFORNIA—				
38-40 high burning test	.03½	.04¼	.03½	.04¼
NEW YORK (Bayonne, N. J.)—				
41-43	.05	.05¼	.05	.05¼
GULF COAST (domestic)—				
41-43 water white	.04¼		.03¾	.04

*For Pacific Coast consumption.

†For Arkansas, Louisiana and Mississippi delivery.

Furnace Oils and Tractor Fuels

	June 27		June 20	
OKLAHOMA (Group 3)—				
32-36 straw	.02		.01⅞	.02
36-38 straw	.01¾	.02	.01¾	.01⅞
38-40 straw	.02	.02⅛	.01⅞	.02
39-41 prime	.02⅛	.02¼	.02⅛	.02¼
NORTH TEXAS—				
38-40 straw	.02	.02⅛	.01⅞	.02
†NORTH LOUISIANA—				
36-40	.02½	.02¾	.02½	.02¾
†ARKANSAS—				
32-36	.02½	.02⅝	.02½	.02⅝
CHICAGO (Based on Oklahoma Group 3)—				
32-36 straw	.02⅛		.01⅞	.02
38-40 straw	.02¼	.02⅜	.01⅞	.02
38-40 prime white	.02⅜	.02½	.02	.02⅛
PENNSYLVANIA (inland refineries)—				
40-41 prime white	.03	.03⅛	.03	.03⅛
NEW YORK (Bayonne, N. J.)—				
32-36	.04		.04	
36-40	.05		.05	
21 (industrial)	.03½		.03½	

Above prices are for distillate oils of zero cold test under 190° F. flash and good odor.

†For Arkansas, Louisiana and Mississippi delivery.

Gas Oil, Diesel Oil and Fuel Oil

Gas oil (G.O.) quoted per gallon basis; Diesel oil and fuel oil per barrel.

	June 27		June 20	
OKLAHOMA (Group 3)—				
32-36 (G.O.) cracking stock	.01⅛	.01¼	.01⅛	.01⅛
U.G.I. (G.O.)	.01⅛	.01¼	.01⅛	.01¼
32-36, zero to 15 (G.O.) high flash	.01½	.01⅝	.01½	.01⅝
28-30, zero to 10	.62½	.67½	.62½	.67½
26-30, zero to 10	.60	.65	.60	.65
24-26	.45	.50	.45	.50
20-22	.40	.45	.40	.45
Below 16	.35	.40	.32½	.37½
NORTH TEXAS—				
32-36 (G.O.) industrial	.01⅛	.01¼	.01⅛	
22-26	.45	.50	.45	.50
Below 20	.40	.45	.40	.45
†NORTH LOUISIANA—				
32-36 (G.O.) zero	.02¼	.02⅜	.02¼	
14-16	.35	.40	.35	
†ARKANSAS—				
30-32 (G.O.) zero	.02¼	.02⅜	.02¼	
14-16	.35	.40	.35	
CHICAGO (Based on Oklahoma Group 3)—				
32-36 (G.O.) industrial	.01¼	.01⅜	.01	.01¼
28-30 (zero)	.65	.70	.62½	.65
26-28 (zero)	.60	.65	.55	.60
22-26 (zero)	.55	.60	.50	.55
18-22 (zero)	.50	.55	.45	.47½
Below 18	.40	.45	.37½	.40

Note: Fuel oils of more than 40 cold test generally 5 to 15 cents per barrel less in all areas than shown in above tables.

†For Arkansas, Louisiana and Mississippi delivery.

PENNSYLVANIA (inland refineries)—				
36-40	.03¼		.03¼	
CALIFORNIA—				
30-34 (G.O.) per bbl.	.80	.90	.80	.90
27 plus Diesel	.75	.85	.75	.85
15-19 bunker (at tidewater)	.50	.60	.50	.60
15-19 (cargo lots)	.45	.55	.45	.55
15-19 (tank cars)	.40	.50	.35	.50
GULF COAST—				
28-30 (G.O.)	.03	.03⅛	.02⅝	.02⅞
28-30 Diesel	1.50		1.50	
Bunker C (bulk cargoes)	.50	.55	.50	.55
Bunker C (bunkers)	.60		.60	
NEW YORK (Bayonne, N. J.)—				
28 plus (G.O.)	.04		.04	
*28-30 Diesel	1.65		1.65	
26-30 Diesel (tank cars)	.04		.04	
‡Bunker C	.70	.75	.70	.75

*Lighterage 6½ cents per barrel.

†Lighterage 5 cents per barrel.

‡Contract price at New York Harbor to ocean-going steamships only.

Petroleum Coke*

Prices per ton f.o.b. refineries in Chicago area.

Breeze (screenings)	4.50	4.50
Still runs	5.50	5.50
Lump and egg	6.50	6.50

*Refineries will absorb freight to 80 cents a ton.

Neutral Oils

(Viscosity at 100° F. and color)

	June 27		June 20	
OKLAHOMA (Group 3)—				
Zero to 10 Cold Test:				
150-3	.06¼	.06½	.06¼	.06½
180-3	.07½	.07¾	.07½	.07¾
180-4	.07¼	.07½	.07¼	.07½
200-3	.08	.08¼	.08	.08¼
200-4	.07¾	.08	.07¾	.08
240-3	.10	.10¼	.10	.10¼
240-4	.09¾	.10	.09¾	.10
280-3	.11	.11¼	.11	.11¼
280-4	.10½	.10¾	.10½	.10¾
300-3½	.11¼	.11½	.11¼	.11½
350-3½	.11¾	.12	.11¾	.12
400-4	.12¼	.12½	.12¼	.12½
500-4½	.12¾	.13	.12¾	.13
100-2 paraffin oil	.04¼	.04½	.04¼	.04½
15-30 Cold Test:				
200-3	.07⅛	.07½	.07¼	.07½
200-4	.07	.07¼	.07	.07¼
240-3	.09¼	.09½	.09¼	.09½
240-4	.09	.09¼	.09	.09¼
280-3	.10¼	.10½	.10¼	.10½
280-4	.10	.10¼	.10	.10¼
PENNSYLVANIA—				
150 vis., No. 3, 400-405:				
Zero pour test	.17½	.18	.17½	.18
10 pour test	.17	.17½	.17	.17½
15 pour test	.15½	.15¾	.15½	.15¾
25 pour test	.14¾	.15	.14¾	.15
180 vis., No. 3, 25 pour test	.16¼	.16½	.16¼	.16½
200 vis., No. 3:				
Zero pour test	.20¼	.20½	.20¼	.20½
10 pour test	.19¼	.19½	.19¼	.19½
15 pour test	.18¼	.18½	.18¼	.18½
25 pour test	.17½	.17¾	.18¼	.18½
GULF COAST—				
Pale Oils:				
100-2-2½	.04¾	.05¼	.04¾	.05¼
200-3	.05½	.06	.05½	.06
300-3	.06¾	.07¼	.06¾	.07¼
500-3½	.08¾	.09½	.08¾	.09½
750-3½	.09¾	.10¼	.09¾	.10¼
1,200-3½	.12¾	.13	.12¾	.13
2,000-4	.13¾	.14	.13¾	.14
Red Oils:				
200-5-6	.05	.05½	.05	.05½
300-5-6	.06	.06½	.06	.06½
500-5-6	.07	.07½	.07	.07½

1,200-5-6	.10¾	.11	.10¾	.11
2,000-6 plus	.12¾	.13	.12¾	.13
CALIFORNIA—				
Pale Oils:				
100-2½-3	.09	.09½	.09	.09½
200-2½-3	.09½	.10	.09½	.10
300-3-3½	.10½	.11	.10½	.11
350-3-4	.11	.11½	.11	.11½
400-3-4	.11½	.11¾	.11½	.11¾
450-3-4	.11¾	.12	.11¾	.12
550-3-4	.12	.12½	.12	.12½
Red Oils:				
200-4-5	.09½	.10	.09½	.10
300-5-6	.10½	.11	.10½	.11
350-5-6	.11	.11½	.11	.11½
400-5-6	.11½	.11¾	.11½	.11¾
450-5-6	.11¾	.12	.11¾	.12
500-5-6	.12	.12¼	.12	.12¼
600-5-6½	.12¼	.12½	.12¼	.12½
700-6½ plus	.12½	.12¾	.12½	.12¾
750-6½ plus	.12¾	.13	.12¾	.13
900-6½ plus	.13	.14½	.13	.14½

Bright and Steam Refined Stocks

OKLAHOMA (Group 3)—	June 27		June 20	
630 light green	.05½	.06½	.05½	.06½
600 light green S.R.	.05	.06	.05	.06
600 dark green S.R.	.03½	.04½	.03½	.04
Bright Stocks:				
190-200 D	.20½	.21½	.19½	.20½
150-160 D, 0-10	.18¾		.17¾	
150-160 D, 10-25	.18¾		.17¼	
150-160 D, 25-40	.17¾		.16¾	
150-160 E	.16¾		.15¾	
PENNSYLVANIA—				
600 S.R.	.12¼	.12½	.11¾	.12
650 S.R.	.14¼	.14½	.13¾	.14
600 Pennsylvania flash	.15½	.16	.14¾	.15
650 D filtered	.20¼	.20½	.19¾	.20
600 E filtered	.16	.16½	.15¼	.15½
Pennsylvania Grade bright stock:				
No. 8 color, 145-50 vis., at 210; 540-550 flash:				
10 pour test	.24½	.25	.23½	.24
15 pour test	.22½	.23	.21½	.22
25 pour test	.22	.22½	.20½	.21

Wax and Petrolatum

(Prices per pound)

	June 27		June 20	
OKLAHOMA (Group 3)—				
124-126 white crude scale	.02¼	.02⅜	.02¼	.02⅜
PENNSYLVANIA—				
122-124	.02½	.02⅝	.02⅝	.02½
124-126	.02⅝	.02¾	.02½	.02⅝
NEW YORK HARBOR—				
120-122 (a.m.p. basis)	.03		.03	
125-127	.0330		.0330	
130-132	.0370		.0370	
133-135	.0430		.0430	
135-137	.0460		.0460	
Petrolatum in barrels in carload lots:				
Dark green	.01⅞		.01875	
Amber	.02		.02	
Extra amber	.02⅜		.02⅜	
Lily white	.05½		.0550	
Snow white	.06½		.0650	
Cream	.04½		.0450	
CHICAGO (f.o.b. switching district)*—				
122-124	.0340	.0350	.0340	.0350
125-127	.0365	.0375	.0365	.0375
127-129	.0380	.0390	.0380	.0390
130-132	.0440	.0450	.0440	.0450
132-134	.0465	.0475	.0465	.0475

*Cents per pound on carlot orders in cotton lined burlap bags of 225 lbs. approx. Add 3° F. for a.m.p.

Export Prices

GASOLINE

GULF COAST—	June 27	June 20
U. S. Motor	.04½	.03½ .03¾

64-66 375	.05		.03875	.04
LOS ANGELES, CALIF.—				
U. S. Motor, 53-55 437 e.p.	.03¾	.04¼	.03¾	.04¼
U. S. Motor, 65 octane	.04½	.04¾	.04½	.04¾
U. S. Motor, 67 octane	.05		.05	
U. S. Motor, 69 octane	.05¼		.05¼	
58-60 400 endpoint gasoline	.04¼	.05	.04¼	.05
KEROSENE				
GULF COAST—				
41-43 prime white	.0375		.0375	
41 water white	.04		.04	
LOS ANGELES, CALIF.—				
41-43 water white	.03¾	.04¼	.03¾	.04¼
LUBRICANTS				
NEW YORK (f.a.s. in bbls.)—				
600 Warren E	.22¾		.22¼	
600 S.R. unfiltered	.19		.18½	
650 S.R. unfiltered	.21¼		.20½	
600 flash S.R.	.22½		.21⅝	
630 flash S.R.	.27¼		.26½	
Bright stock, No. 8 color	.28½		.27½	
Bright stock, No. 6½ color, dil.	.27½		.26½	
NEUTRALS				
NEW YORK—Pale Engine Oil, Bulk (vis. at 100)—				
230-3¾	.09¾		.09¾	
180-3½	.09½		.09½	
100-2¼	.05		.05	
Red Engine Oil, Bulk (vis. at 100):				
300-6½	.09½		.09½	
250-6	.08½		.08½	
200-6	.07¾		.07¾	
PARAFFIN WAX (Fully Refined)				
NEW YORK (prices per pound)—				
123-125 a.m.p.	.02875		.02875	
125-127 a.m.p.	.03		.03	
130-132 a.m.p.	.0350		.03½	
133-135 a.m.p.	.04		.04	
135-137 a.m.p.	.04¼		.04¼	

Crude Oil Prices

Oklahoma, Kansas, North and East Central Texas

East Texas (see note)	$.50
Corsicana (heavy) (June 17, 1933)*	.30
Other fields	(See gravity table)

Note—Effective June 17, East Texas posted by Sinclair Prairie Oil Marketing Co., Stanolind Crude Oil Purchasing Co., Magnolia Petroleum Co. Effective June 19, Texas Co., Tide Water Oil Co., Panola Pipe Line Co., Humble Oil & Refining Co., Gulf Pipe Line Co.
*Magnolia Petroleum Co.

West Texas

Crane, Upton, Crockett, Howard, Glasscock, Mitchell, Ector, Winkler and Pecos Counties (see note)	$.30
Lea County, N. Mex. (June 19, 1933)	.30
Teborg, Pecos County (June 20, 1933)*	.25
Jones and Fisher Counties	See gravity table

Note—Effective June 19, Crane, Upton, etc., posted by the Texas Co., Magnolia Petroleum Co., Gulf Pipe Line Co., Humble Oil & Refining Co., Lea County, effective June 19, Texas Co. and other purchasers.
*Shell Petroleum Corp.

Gulf Coast

Grade A and Grade B specifications discontinued by leading buyers	See gravity table
Tomball (June 19, 1933)*	$ .65
Livingston (June 20, 1933)†	.50
Refugio light	(See gravity table) (Gulf Coast)*
Refugio heavy (June 19, 1933)*	.45
Markham and High Island	(See gravity table) (Gulf Coast)
Conroe	(See gravity table)*

*Humble Oil & Refining Co., Markham by Texas Co., and High Island by Yount Lee Oil Co. †Shell Petroleum Corp.

South Central and Southwest Texas

Darst Creek (June 19, 1933)	See note
Mirando (June 19, 1933)	See note
Luling (June 19, 1933)	$ .30
Pettus (June 19, 1933)	.55
Salt Flat (June 19, 1933)	.40
Lytton Springs (June 19, 1933)	.45
Duval County (June 22, 1933)	.40
Saxet (June 19, 1933)	.45

Note—Darst Creek, Gulf Pipe Line Co. and Humble Oil & Refining Co., 40 cents; effective June 22, Texas Co., Magnolia Petroleum Co., 40 cents; Mirando, Magnolia Petroleum Co., 35 cents; Humble Oil & Refining Co., 40 cents. Pettus and Salt Flat by Humble and Gulf companies; Luling and Lytton Springs, by Magnolia Petroleum Co. Duval and Saxet, by Texas Co.

North Louisiana and Arkansas

Smackover, Ark. (all grades)	See note
Urania, La. (Jan. 20, 1933)	$ .25
East El Dorado, Ark. (June 19, 1933)	See note
Other fields	See gravity table

Note — Smackover, all grades, effective June 19 by Texas Co., 50 cents; June 19, Standard Oil Co. of Louisiana, 50 cents; June 20, Magnolia Petroleum Co., 50 cents; Gulf Refining Co., 50 cents; Louisiana Oil Refining Corp., 50 cents. Urania Field posted by Louisiana Oil Refining Co. and H. L. Hunt, Inc., East El Dorado, effective June 20, Magnolia Petroleum Co., 30 cents; Gulf Refining Co., 30 cents; Phil Tex Oil Co., effective June 19, posted 20 cents for all grades in Union and Ouachita Counties, Ark.

Eastern States

SOUTH PENN OIL CO.
(Effective June 26, 1933)

Pennsylvania Grade Oil in National Transit Lines (Bradford Field)	$1.57
Pennsylvania Grade Oil in Southwest Pennsylvania Lines	1.27
Penna Grade Oil in Eureka Pipe Line Lines	1.22
Penna Grade Oil in Buckeye Pipe Line Lines	1.07
Corning Grade Oil in Buckeye Pipe Line Co.'s lines (June 27, 1933)	.70
Ragland Grade Oil in Cumberland Pipe Lines (Kentucky) (Jan. 10, 1931)	.40

TIDE WATER PIPE CO.
(Effective June 26, 1933)

Bradford, Pa.	$1.57
Allegany, N. Y.	1.57

PURE OIL CO.
(Effective June 26, 1933)

Cabin Creek, W. Va.	$1.22
Bradford Hollow, W. Va.	1.32

PENNZOIL CO.
(Effective June 17, 1933)

Pennsylvania Grade Oil in National Transit Lines:

Group A	$1.52
Includes Cochran, Franklin, Hamilton and Doolittle districts.	
Group B	1.51
Includes Titusville district.	
Group C	1.50
Includes Turkey and Tidioute districts.	
Group D	1.49
Includes Bear Creek and Porkey districts.	
Group E	1.47
Includes Eldenau, Bull Creek, Rough Run, Carbon, Dipner, Bredin, McJunkin, Jameson, Kennerdell, Emlenton, Tiona, Lacy and Kinsua districts.	

(Continued on Page 31)

Crude Oil Gravity Table

Degrees of gravity—	Oklahoma, Kansas, North, Central and East Central Texas	North Louisiana and Arkansas	Gray County, Texas	Gray County, Texas	Carson and Hutchinson Counties, Texas	Carson and Hutchinson Counties, Texas	Conroe, Texas	Salt Creek, Wyo.	Gulf Coast, Texas	Gulf Coast, Texas	Caddo, Louisiana	Homer, Louisiana	Haynesville, La.	Sabine, DeSoto, Carterville, Sarepta	El Dorado, Arkansas
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Below 20	...	...	...	...	...	...	...	...	$0.32	$0.32	...	...	...	...	...
20-20.9	...	...	...	...	...	...	...	...	.34	.34	...	...	...	...	...
21-21.9	...	...	...	...	...	...	...	...	.36	.36	...	...	...	...	...
22-22.9	...	...	...	...	...	...	...	...	.38	.38	...	...	...	...	...
23-23.9	...	...	...	...	...	...	...	...	.40	.40	...	...	...	...	...
24-24.9	...	...	...	...	...	...	...	...	.42	.42	...	...	...	...	...
Below 25	*$0.20	...	...	...	...	...	...	...	...	...	...	...	...	...	...
25-25.9	*.22	...	...	...	...	...	...	...	.44	.44	...	...	...	...	...
26-26.9	*.24	...	...	...	...	...	...	...	.46	.46	...	...	...	...	...
27-27.9	*.26	...	...	...	...	...	...	...	.48	.48	...	...	...	...	...
28-28.9	*.28	...	...	...	...	...	...	...	.50	.50	...	...	...	...	...
Below 29	.28	$0.28	...	...	...	...	...	$0.28	...	...	$0.26	$0.32	$0.29	$0.35	$0.37
29-29.9	.30	.30	...	...	...	...	...	.30	.52	.52	.28	.34	.31	.37	.39
30-30.9	.32	.32	...	...	...	...	...	.32	.54	.54	.30	.36	.33	.39	.41
31-31.9	.34	.34	...	...	...	...	...	.34	.56	.55	.32	.38	.35	.41	.43
32-32.9	.36	.36	...	...	...	...	...	.36	.58	.56	.34	.40	.37	.43	.45
33-33.9	.38	.38	...	...	...	...	...	.38	.60	.57	.36	.42	.39	.45	.47
34-34.9	.40	.40	...	...	...	...	...	.40	.62	.58	.38	.44	.41	.47	.49
Below 35	...	...	$0.34	...	$0.32	...	...	...	...	...	...	...	...	...	...
35-35.9	.42	.42	.36	$0.30	.31	$0.30	$0.59	.42	.62	.59	.40	.46	.43	.49	.51
36-36.9	.44	.44	.38	.32	.33	.32	.61	.44	.62	.60	.42	.48	.45	.51	.53
37-37.9	.46	.46	.40	.34	.35	.34	.63	.46	.62	.61	.44	.50	.47	.53	.55
38-38.9	.48	.48	.42	.36	.37	.36	.65	.48	.62	.62	.46	.52	.49	.55	.57
39-39.9	.50	.50	.44	.38	.39	.38	.67	.50	.62	.63	.48	.54	.51	.57	.59
40 and over	.52	.52	.46	.40	.41	.40	.69	.52	.62	.64	.50	.56	.53	.59	.61

Column 1—Effective June 17, Sinclair Prairie Oil Marketing Co., Stanolind Crude Oil Purchasing Co., Magnolia Petroleum Co., Continental Oil Co. Effective June 19, Empire Oil & Refining Co. Effective June 17, in Oklahoma alone, Barnsdall Refineries, Inc., Mid-Continent Petroleum Corp., Pure Oil Co., Deep Rock Oil Co., Globe Oil & Refining Co., Golden Rule Refining Co., Tide Water Oil Co. Effective June 17, in Kansas alone, Skelly Oil Co., Dickey Refining Co., Elderado Refining Co., Derby Oil Co., Kanotex Refining Co. Effective June 19, Gypsy Oil Co. in Oklahoma and Kansas and Gulf Pipe Line Co. in Texas; Carter Oil Co. in Oklahoma and Humble Oil & Refining Co. in Texas; Texas Co. in Oklahoma and Texas. Effective June 20, Shell Petroleum Corp. in Kansas and Oklahoma. Effective June 17, H. F. Wilcox Oil & Gas Co., Phil Tex Oil Co., Champlin Refining Co. in Oklahoma.

Column 2—Effective June 19, The Texas Co., Gulf Refining Co., Louisiana Oil Refining Co. Effective June 20, Magnolia Petroleum Co. Effective June 19, Stanolind Oil & Gas Co. in Pine Island district, Louisiana, and Marion County, Texas, posted below 29 gravity, 26 cents with 2-cent spread upward to 40 gravity and over at 50 cents. For Standard Oil Co. of Louisiana prices see Columns 11, 12, 13, 14 and 15.

Column 3—Effective June 19, Humble Oil & Refining Co. and Gulf Pipe Line Co.; effective June 22, Sinclair Prairie Oil Marketing Co., The Texas Co., Magnolia Petroleum Co.

Column 4—H. F. Wilcox Oil & Gas Co., Phillips Petroleum Co., effective June 19.

Column 5—Effective June 19, Humble Oil & Refining Co., Gulf Pipe Line Co. and Continental Oil Co.; effective June 22, Sinclair Prairie Oil Marketing Co., The Texas Co., Magnolia Petroleum Co.

Column 6—Phillips Petroleum Co., effective June 19.

Column 7—Humble Oil & Refining Co., effective June 19. The Texas Co. and Tide Water Oil Co., June 22.

Column 8—Stanolind Oil & Gas Co., June 17.

Column 9—Sinclair Prairie Oil Marketing Co., effective July 17. Humble Oil & Refining Co. and Gulf Pipe Line Co., effective June 19. Effective June 20, Magnolia Petroleum Co., in Lockport, La., posted Texas Co. Gulf Coast prices; in Cameron Meadows and Iowa, La., below 20 gravity, 22 cents, with 2-cent differential to 34 and above at 52 cents.

Column 10—Texas Co., effective June 19.

Columns 11, 12, 13, 14 and 15—Standard Oil Co. of Louisiana, effective June 19.

(California Crude Oil Prices on Page 31)

TANK WAGON MARKETS

Quotations for gasoline and kerosene in United States, as furnished by the larger marketing concerns, include taxes

June 27, 1933

Taxes

The gasoline quotations given in the following tables include the 1½-cent Federal tax effective June 17, 1933, as well as state, county and city taxes. The gasoline quoted is the regular or standard grade. In most marketing areas a third or competitive grade is generally available at 1 or more cents per gallon under the service station price for the regular grade. Ethyl Gasolines are sold 2.5 to 3 cents above the service station price for the regular grade.

Southern District

STANDARD OIL CO (KENTUCKY)

	Gasoline			Kero.
	Tank wagon	Service station	Inc'lds tax	tank wagon
Atlanta, Ga.	20.5	20.5	7.5	10.5
Augusta	20.5	20.5	7.5	9.0
Macon	20.5	20.5	7.5	13.0
Savannah	20.5	20.5	7.5	14.0
Birm'ham, Ala.	22.5	22.5	8.5	11.0
Mobile	18.5	18.5	8.5	8.0
Montgomery	23.5	23.5	8.5	14.0
Jackson, Miss.	17.5	17.5	7.5	12.0
Vicksburg	17.5	17.5	7.5	12.0
Jack'ville, Fla.	20.5	20.5	8.5	12.5
Miami	20.5	20.5	8.5	12.0
Pensacola	20.5	20.5	8.5	14.0
Tampa	20.5	20.5	8.5	10.0
Lexington, Ky.	20.0	20.0	6.5	10.0
Covington	18.5	18.5	6.5	11.5
Louisville	17.5	17.5	6.5	10.0
Paducah	20.5	20.5	6.5	9.0

In addition to the state tax of 4 cents on gasoline, Montgomery has city and county tax of 2 cents on gasoline and one-half cent on kerosene. Kerosene prices in Georgia include 1-cent tax. In Florida, an inspection fee of 0.125 cent; in Alabama, an inspection fee of one-half cent on kerosene and one-fortieth cent on gasoline. To Pensacola, Montgomery and Birmingham state taxes add 1-cent tax. To Mobile state tax add 2-cent city tax. Dealers receive discount of 2 cents off tank wagon price throughout territory.

Southwestern District

MAGNOLIA PETROLEUM CO.

	Gasoline			Kero.
	Tank wagon	Service station	Inc'lds tax	tank wagon
Dallas, Tex.	14.0	16.5	5.5	7.5
Fort Worth	14.0	16.5	5.5	7.5
Houston	14.0	16.5	5.5	8.0
San Antonio	14.0	16.5	5.5	8.0
El Paso	14.0	16.5	5.5	8.0
Texarkana	*15.5	18.5	6.5	†11.0
Muskegee	14.0	16.0	5.5	6.5
Okla. City	14.0	16.0	5.5	7.5
Tulsa	14.0	16.0	5.5	6.5
Ft. Smith, Ark.	*12.9	16.9	5.5	†9.0
Little Rock	‡19.4	19.4	7.5	†10.0

*Less 2½ cents to dealers. †Less 2 cents to dealers. ‡Less 4½ cents to dealers.

Standard Oil Co. (Indiana)

	Gasoline			Kero.
	Tank wagon	Service station	Inc'lds tax	tank wagon
Chicago	14.6	14.6	4.5	8.5
Decatur, Ill.	15.0	15.0	4.5	9.0
E. St. Louis	15.3	15.3	4.5	8.3
Joliet	15.0	15.0	4.5	9.0
Peoria	15.0	15.0	4.5	9.0
Quincy	14.8	14.8	4.5	8.8
Davenport, Ia.	15.1	15.1	4.5	9.1
Des Moines	15.1	15.1	4.5	9.1
Mason City	15.1	15.1	4.5	9.1
Sioux City	14.7	14.7	4.5	8.7
Duluth, Minn.	15.7	15.7	4.5	9.2
Mankato	15.3	15.3	4.5	9.3
Minneapolis	15.4	15.4	4.5	9.3
LaCrosse, Wis.	16.8	16.8	5.3	9.8
Green Bay	16.2	16.2	5.5	9.2
Milwaukee	15.7	15.7	5.5	8.7
Madison	15.9	15.9	5.5	8.9
Detroit, Mich.	15.5	15.5	4.5	9.5
Grand Rapids	15.2	15.2	4.5	9.2
Saginaw	15.5	15.5	4.5	9.5
Evansville, Ind.	16.0	16.0	5.5	9.0
Indianapolis	16.2	16.2	5.5	9.2
South Bend	16.5	16.5	5.5	9.5
Fargo, N. Dak.	17.1	17.1	4.5	10.6
Huron, S. Dak.	17.3	17.3	5.5	9.3
Sioux Falls	16.8	16.8	5.5	10.0
K. C., Mo.*	14.2	14.2	4.5	7.7
Springfield*	14.1	14.1	4.5	8.1
St. Louis	13.2	13.2	4.0	7.7
St. Joseph*	13.8	13.8	4.5	7.3
Wichita, Kans.	13.1	13.1	4.5	7.1
Bartlesville, Ok.	14.0	17.0	5.5	8.3

*State tax 2 cents, 1-cent city tax and 1-cent Federal tax.

Effective June 1, 1933—Discounts off tank wagon price to consumers on 500 gallons or more per month in territory outside of Chicago metropolitan area: 2 cents on Ethyl and Red Crown gasolines, and 1 cent on Stanolind gasoline. One-half cent additional discount in Chicago division.

Effective July 1, 1933—Discounts on resellers authorized agent's agreement made off the service station price throughout the territory as follows: 2.5 cents on Red Crown Ethyl and Standard Red Crown gasolines, and 1.5 cents on Stanolind gasoline. Half of reduction from normal service station price shall be absorbed by reseller up to maximum of 1 cent on all grades.

Stanolex Furnace Oil in Chicago

Effective June 27, 1933, prices f.o.b. Chicago, tank wagon prices: No. 1 (36-40 lt. stw. zero), under 100 gallons, 7¾ cents; No. 2 (30-34 stw. zero), 7¼ cents; No. 3 (22-26 zero), 6¾ cents; No. 4 (12-16 zero), 6¾ cents. Viscosity of No. 4, 90-115 at 100° F.; No. 5, 6½ cents; for deliveries of 100 gallons or more deduct 1 cent.

Fuel Oils

Associated Distributors Prices

Spot market prices on 350 gallons or over deliveries, and top prices on contracts, respectively: 32-40, 6¼ and 7¼ cents; 32-36 light, 5¾ and 6¾ cents; 32-36 dark, 5¼ and 6¼ cents; 28-30, 4½ and 4¾ cents; 24-6, 4¾ and 5¾ cents; 18-22, 4 and 4½ cents. On deliveries of less than 350 gallons the spot price is one-half cent higher.

Naphtha

	Tank Wagon	Tank Car
Oleum spirits	10.7	6.22
V.M.&P. naphtha	12.7	6.73
Cleaners' naphtha	13.0	9.33
Stanisol	13.0	9.33

Tank wagon prices f.o.b. Chicago, January 6, 1933. Each of above prices subject to discount of 1 cent per gallon for 150-gallon lots if covered by contracts.

Rocky Mountain District

CONTINENTAL OIL CO.

	Gasoline			Kero.
	Tank wagon	Service station	Inc'lds tax	tank wagon
Denver, Colo.	16.0	18.0	5.5	11.5
Pueblo	16.0	18.0	5.5	13.0
Grand Jnctn.	18.0	20.0	5.5	13.0
Casper, Wyo.	17.0	19.0	5.5	10.5
Cheyenne	16.0	18.0	5.5	13.0
Butte, Mont.	22.0	24.0	6.5	17.5
Billings	22.0	24.0	6.5	16.0
Great Falls	22.0	24.0	6.5	17.5
Helena	22.0	24.0	6.5	17.5
Salt Lake, Utah	17.0	19.0	5.5	16.0
Albu'que, N. M.	15.5	18.5	*7.5	13.0
Boise, Idaho	22.0	24.0	6.5	18.0
Twin Falls	22.0	24.0	6.5	18.0

*One-cent city tax.

Effective June 1, 1933, dealers and lease and license accounts will receive 2½ cents discount on regular gasoline in Montana, Colorado, Wyoming, Utah and Idaho.

Central South District

STANDARD OIL CO. (LOUISIANA)

	Gasoline			Kero.
	Tank wagon	Service station	Inc'lds tax	tank wagon
N. Orleans, La.	17.8	18.8	*7.5	†11.0
Baton Rouge	17.9	18.9	6.5	†10.0
Alexandria	17.9	18.9	7.5	†9.5
Lafayette	18.1	19.1	7.5	†10.0
Lake Charles	18.9	19.9	7.5	†10.0
Shreveport	15.8	16.8	6.5	†11.0
Knoxville, Tenn.	21.2	22.2	8.5	12.5
Memphis	19.6	20.6	8.5	10.0
Chattanooga	20.9	21.5	8.5	10.0
Nashville	20.5	21.5	8.5	10.0
Bristol	21.1	22.1	8.5	13.0
Lt. Rock, Ark.	18.9	19.9	8.5	10.0

*Includes city tax of 1 cent. †Louisiana kerosene prices include 1-cent state tax. New Orleans kerosene price also includes 1-cent city tax.

Effective June 2, 1933, station price fixed at 7 cents above basic tank car price at key refining points in territory. Discount to cash customers 2 cents off station price. Commercial consumers for tank wagon delivery pay following amounts over tank car price basis yearly deliveries:

1,000 to 75,000 gallons	2.5
75,000 to 300,000 gallons	1.5
Over 300,000 gallons	1.0

Nebraska

STANDARD OIL CO. (NEBRASKA)

	Gasoline			Kero.
	Tank wagon	Service station	Inc'lds tax	tank wagon
Omaha	16.3	17.3	5.5	8.5
McCook	17.8	18.8	5.5	9.0
Norfolk	16.8	17.8	5.5	8.5
N. Platte	17.8	18.8	5.5	9.5
Scottsbluff	17.8	18.8	5.5	10.0

Note — Dealers' discount allowed on follows: Red Crown Ethyl, 3 cents off station price; Red Crown, 2½ cents off normal service station price; Nebraska Blue (third grade), 1 cent off normal service station price.

Atlantic Coast District

(Effective June 28)

STANDARD OIL CO. (NEW JERSEY)

	Gasoline			Kero.
	Tank wagon	Service station	Inc'lds tax	tank wagon
Atl'tic City N.J.	17.7	18.7	4.5	11.2
Newark	16.9	17.9	4.5	8.5
Annapolis, Md.	18.3	19.3	5.5	9.0
Baltimore	17.8	18.8	5.5	8.0
Cumberland	19.3	20.3	5.5	11.7
Wash'g'n, D. C.	16.0	17.0	3.5	10.0
Danville, Va.	20.4	21.4	6.5	9.9
Norfolk	18.9	19.9	6.5	10.3
Petersburg	19.7	20.7	6.5	11.4
Richmond	19.3	20.3	6.5	10.7
Roanoke	20.5	21.5	*6.5	11.0
Charls'n, W.Va.	18.7	19.7	5.5	11.6
Parkersburg	18.0	19.0	5.5	10.5
Wheeling	18.7	19.7	5.5	11.2
Charlotte, N. C.	22.1	23.1	7.5	12.5
Hickory	22.4	23.4	7.5	12.7
Mt. Airy	22.4	23.4	7.5	12.8
Raleigh	21.9	22.9	7.5	12.3
Salisbury	22.2	23.2	7.5	12.6
Charleston, S.C.	19.9	20.9	7.5	10.3
Columbia	21.7	22.7	7.5	13.2
Spartanburg	22.1	23.1	7.5	12.5

Note—Dealer contracts for gasoline are written at 2½ cents over the posted tank car price. The posted tank car price is the sum of the tax and 7.5 cents subtracted from service station price. A 2-cent discount allowed for cash at all service stations. Kerosene 1 cent off tank wagon for 25 gallons or more under contract except New Jersey and Baltimore, Md.

New York and Part of New England District

STANDARD OIL CO. (NEW YORK)*

	Gasoline			Kero.
	Tank wagon	Service station	Inc'lds tax	tank wagon
Albany, N. Y.	17.1	18.1	4.5	9.0
New York	13.0	16.0	4.5	8.0
Buffalo	18.0	19.0	4.5	9.0
Rochester	18.2	19.2	4.5	9.0
Syracuse	17.8	18.8	4.5	9.5
Boston, Mass.	17.0	18.0	4.5	8.0
Augusta, Me.	18.5	19.5	5.5	9.0
Manch'tr, N. H.	19.2	20.2	8.5	8.0
Burlington, Vt.	19.8	20.8	5.5	8.5

*Discount schedule to commercial accounts are as follows: At service stations, 1 cent per gallon; tank wagon deliveries up to 20,000 gallons monthly, 2 cents per gallon; 20,000 to 100,000 gallons, 2½ cents; 100,000 to 300,000 gallons, 3 cents; 300,000 gallons and up, 3½ cents.

Pacific Coast Territory

STANDARD OIL CO. OF CALIFORNIA*

	Gasoline			Kero.
	Tank truck†	Posted retail	Incl'ds tax	tank wagon
Fresno, Calif.	17.5	20.0	4.5	14.0
San Francisco	17.0	19.5	4.5	12.5
Los Angeles	16.0	18.5	4.5	12.5
Reno, Nev.	20.5	23.0	5.5	15.5
Portland, Ore.	20.0	22.5	5.5	13.5
Seattle, Wash.	20.0	22.5	6.5	13.5
Tacoma	20.0	22.5	6.5	13.5
Spokane	23.0	25.5	6.5	18.0
Phoenix, Ariz.	19.0	21.5	6.5	‡16.0

*Retail prices posted by Standard Stations, Inc., a subsidiary.

†Above prices are at company's plant or depots as company does not operate stations. A 4-cent per gallon discount is given dealers and customers taking tank wagon lots except in Phoenix where the discount is 1 cent. ‡Includes 5-cent state tax.

Pennsylvania-Delaware and Part of New England

ATLANTIC REFINING CO.

	Gasoline			Kero.
	Tank wagon	Service station	Incl'ds tax	tank wagon
Pittsburgh, Pa.	15.0	16.0	4.5	9.0
Philadelphia	15.0	15.5	4.5	9.0
Scranton	15.0	16.0	4.5	9.0
Allentown	15.0	16.0	4.5	9.0
Altoona	15.0	16.0	4.5	9.5
Erie	15.0	16.0	4.5	9.5
Dover, Del.	15.0	16.0	4.5	9.0
Wilmington	15.0	16.0	4.5	9.0
Springf'd, Mass.	17.1	18.1	4.5	8.0
Worcester	17.0	18.0	4.5	8.0
Boston	16.5	17.5	4.5	8.0
Providence, R.I.	14.7	16.7	3.5	8.0
Hartford, Conn.	15.9	16.9	3.5	8.0
New Haven	16.7	16.7	3.5	8.0

Discount schedule effective November 1, 1932. In Delaware and Pennsylvania, 2 cents off station price on purchases of 2,000 gallons or more per month, in remainder of territory 1 cent. Wholesale discount 2½ cents per gallon on monthly deliveries of 20,000 to 100,000 gallons, 3 cents on 100,000 to 300,000 gallons, and 3½ cents on more than 300,000 gallons.

Ohio

STANDARD OIL CO. (OHIO)*

	Gasoline			Kero.
	Tank wagon	Service station	Inc'lds tax	tank wagon
Ohio points	19.5	*20.0	5.5	12.0

*Two-cent discount allowed for cash.

Canada*

IMPERIAL OIL, LTD.

Imperial 5-Star Gasoline

	Gasoline			Kero.
	Tank wagon	Service station	Inc'lds tax	tank wagon
Hamilton, Ont.	22.5	25.5	6.0	15.5
Toronto, Ont.	22.5	25.5	6.0	15.5
Brandon, Man.	29.0	32.5	7.0	17.5
Winnipeg, Man.	26.0	29.5	7.0	17.5
Regina, Sask.	29.0	33.0	8.0	21.5
Saskatoon, Sask.	31.0	35.0	8.0	23.5
Edmonton, Alta.	29.5	33.5	8.0	22.5
Calgary, Alta.	26.0	30.0	8.0	19.0
Vancouver, B.C.	26.5	29.5	7.0	22.5
Montreal, Que.	22.0	25.0	6.0	15.0
St. Johns, N.B.	24.5	28.5	7.0	20.5
Halifax, N.S.	23.5	27.5	8.0	20.5

*Imperial gallon used in Canada.

TANK WAGON CHANGES

(Regular grade gasoline and kerosene)

Standard Oil Co. of New York, Inc., effective June 27 advanced gasoline tank wagon and service station prices one-half cent in New York and New England States.

Standard Oil Co. of Ohio effective June 21 advanced gasoline tank wagon and service station prices 1 cent in Ohio.

Standard Oil Co. (Indiana) effective June 21 advanced gasoline tank wagon and service station prices 1 cent and kerosene tank wagon one-half cent.

Atlantic Refining Co. effective June 23 advanced gasoline tank wagon and service station prices one-half cent in Pennsylvania and Delaware.

Standard Oil Co. of Nebraska effective June 21 advanced gasoline tank wagon and service station prices 1 cent and kerosene one-half cent.

Magnolia Petroleum Co. effective June 18 advanced gasoline tank wagon and service station prices 1 cent in Texas and Oklahoma; on same date a gasoline tank wagon price of 12.9 cents and a service station price of 16.9 cents was established at Fort Smith, Ark.; on same date gasoline tank wagon and service station prices of 17.9 cents were established at Little Rock, Ark.

Standard Oil Co. of California and Standard Stations, Inc., effective June 20 advanced gasoline tank wagon and service station prices one-half cent and on June 26 advanced an additional 1 cent.

Continental Oil Co. effective June 19 advanced gasoline tank wagon and service station prices one-half cent; on June 21 the company advanced gasoline tank wagon and service station prices 1 cent in Colorado and Wyoming and on June 22 1 cent in Montana. Effective June 22 there was a gasoline price adjustment in New Mexico which established gasoline tank wagon price of 18 cents and service station of 20½ cents at Albuquerque; effective June 21 kerosene tank wagon price advanced one-half cent in Colorado, Wyoming and Montana.

(Continued on Page 31)

CRUDE OIL PRICE CHANGES

The Standard Oil Co. of California and Union Oil Co. advanced prices in all fields in California in which they purchase effective June 26. The advance will average 10 cents per barrel, but ranges from 2 to 15 cents according to gravity. The prices generally are much higher than those paid in the Mid-Continent Field for oils of like gravity. For example, the average price in the Signal Hill Field for 27 gravity crude is 85 cents, while the price of 37 gravity crude in the Mid-Continent is 46 cents. Kettleman Hills crude of 37 gravity is quoted at 84 cents, or 38 cents per barrel higher than oil of the same gravity in the Mid-Continent Field.

Last week's crude oil prices in fields in Texas where there was a variation of

(Continued on Page 31)

152 PLANES OF AMERICAN AIRWAYS, INC. rely on SINCLAIR OILS

NOW comes further proof of the reliability of Sinclair lubricants. The 152 planes of the American Airways, Inc., one of America's biggest air transport companies, have switched to Sinclair. In linking by air 75 cities and 20 states in the United States and two Canadian provinces, American Airways planes, now operating on Sinclair lubricants, fly 37,697 miles each day.

This is impressive proof of Sinclair quality and economy—particularly when added to the fact that 150 American railroads, the United States Navy and many other public as well as private enterprises have been long-time users of Sinclair Oils. The 8 Sinclair refineries are now using 50 basic oils from which they manufacture some 200 grades—each adapted to some particular need of industry or transportation.

TUNE IN MONDAY EVENINGS 39 NBC STATIONS—SINCLAIR MINSTRELS

SINCLAIR

Markets in Chicago Continuing Strong Advance; Motoring to Fair Increasing Consumption

By R. C. CONINE
Chicago Bureau, The Oil and Gas Journal

CHICAGO, June 26.—With the exception of the special naphthas, which are subject to conditions not met with in gasoline business, or any other refined product business, for that matter, the markets in the Chicago district Monday continued a strong advance. Demand for gasoline, and the apparent tightening at the refineries, has sent gasoline tank car markets skyrocketing, and if the policy of adjusting the retail prices with the tank car prices operates before any possible lull in buying activity, another tank wagon and service station advance may be expected.

At the code conference held in Chicago last week, where much was heard about the evils of retailing at lower than cost, one of the speakers pointed out that while the posted price in Chicago on the regular grade gasoline is 14.6 cents, most of this material moving in the tank car markets is selling for at least 4.5 cents. Adding 4.5 cents in taxes and 2.44 cents for Group 3 freight to this cost makes a total of 11.44 cents, leaving the handler 3.1 cents as his margin to work on, a losing proposition.

Consumption Increasing

Motor fuel consumption in the adjacent territory is surpassing expectations by a good margin. In Chicago proper the automobile traffic is denser than it has been for several years, and reports from outside of Chicagoland are highly encouraging. One investigator reports that a "lively parade of automobiles from eastern states headed for A Century of Progress" are smashing Indiana's records for transstate travel, "just as new high totals are being reached on the highways of Illinois." George Barton, engineer for the Chicago Motor Club, checked traffic with mechanical counters over a period of eight hours. Mr. Barton found that the passenger car travel indicated an increase of 21 per cent over 1931. The volume of out of state travel was almost five times as great as in June of 1931.

The sky is not entirely untroubled for the refiners and marketers, however. Some observers feel that the gasoline rise has been so precipitate and high (considering the past hair-trigger attitude of crude oil producers and refiners) that some arrangement to get more crude will result and the markets will be flooded wrecking the structure. Others feel that crude oil prices must be raised, and will be within the next two or three days. And they also feel that the refiners have learned that they can "keep out of the red" by holding their operations down and refusing to shade prices. The few prices under the going markets heard are invariably on rolling goods that must find a home, and then the price is not more than an eighth of a cent under.

Several of the larger minors and majors say they have no regular or premium octane gasoline to sell on the open markets. Another is naming a price of 5 cents, Group 3, on 60-64 octane material. In view of the fact that considerable "Q" antiknock fluid is being used to Ethylize regular grade gasoline (originally third grade), the wide spread between the low octane gasoline and the higher octane grades seems to indicate that refiners to whom the "Q" fluid is not available are putting a disproportionate quantity of third grade on the markets. The warm weather is another factor working against the low octane materials.

Special Naphthas

The special naphthas Monday continued to hold at last week's price levels, although most producers admitted the incongruity of their position in view of advances in the other products. Some improvement is noted in small contracts offered at this time to buyers, some of the advances amounting to half a cent, but for some reason, the larger sellers appear to be reluctant to advance their prices more than once every two weeks or so. It may be recalled that when during a similar period of improvement not long ago Standard Oil Co. (Indiana) advanced special naphtha tank car prices a full cent, competitors followed for a few days and then a race for business developed with price cutting as the means.

Kerosene Markets

The kerosene markets, particularly the 41-43 water white material, are reflecting low stocks and somewhat better demand. The kerosene markets are expected to continue a strong advance.

Fuel Oils and Distillates

Distillate tank car prices advanced in sympathy with the general trend in other products, and all grades were reported scarce. Fuel oils and industrial gas oil advanced for the same reason and because of revived industrial demand. Industry in the district, particularly steel, is moving forward rapidly and opening good markets for petroleum products.

Refined Waxes

Refined waxes continue to be considered as the firmest products in the markets. However, refiners are reluctant to advance prices before the close of the current quarter because they do not feel like penalizing the small industrial users who would operate at a great disadvantage until the new contracts with the larger units were sent out, with higher prices.

Petroleum Coke

Petroleum coke has been stationary pricewise for a record period and there is no indication that any changes may be anticipated.

Gasoline Tank Car Markets

The gasoline tank car markets Monday showed the following sharp advances: Regular grade gasoline moved up from a low of 4 cents to a range of 4½ to 4⅝ cents; premium grade advanced from a low of 4¼ cents to a range of 4⅝ to 4¾ cents; third grade gasoline advanced from a low of 3⅞ cents to a range of 4 to 4¼ cents. The 60-62 400 endpoint gasoline was quoted at 4⅛ to 4⅜ cents Monday, an advance from a low of 3⅞ cents. The 64-66 475 endpoint gasoline advanced from a low of 4⅛ cents to a range of 4¼ to 4½ cents; the 68-70 300 endpoint gasoline moved up from a low of 4⅛ cents to a range of 4⅜ to 4⅝ cents. Aviation, fighting grade, advanced from a low of 4¼ cents to a range of 4½ to 4¾ cents. The 50-52 450 blending naphtha is listed nominally at 4 to 4⅛ cents.

Kerosene Tank Car Markets

The kerosene tank car markets, as pointed out before, are showing surprising strength for this time of the year. The larger department stores are selling more heating and cooking units requiring kerosene, and business at the service stations is reported somewhat better. This, however, can not possibly account for the extent of improvement which has been noticed in the kerosene markets over the past three weeks. Prices Monday showed the following advances: The 41-43 water white kerosene moved up from a range of 2½ to 2¾ cents to a range of 2¾ to 2⅞ cents. The 42-44 water white kerosene showed a smaller advance, moving up from a range of 2⅞ to 3 cents to a range of 2⅞ to 3⅛ cents.

Distillate Tank Car Prices

Prime white and straw distillates advanced from a quarter to three-eighths of a cent over last week's prices. The 32-36 straw zero was offered Monday at 2⅛ cents. The 38-40 straw zero advanced from a range of 1⅞ to 2 cents, to a range of 2¼ to 2⅜ cents. The 38-40 prime white distillate moved up from a range of 2 to 2⅛ cents, to a range of 2⅜ to 2½ cents.

Fuel Oil Prices

Fuel oil prices Monday show advances of from 2½ to 5 cents a barrel. The industrial gas oil, 32-36, advanced a quarter of a cent to a range of 1¼ to 1⅜ cents. The 28-30 zero fuel oil was advanced from a range of 62½ to 65 cents, to a range of 65 to 70 cents; the 26-28 zero material was advanced 5 cents to a range of 60 to 65 cents; the 22-26 zero advanced similarly to a range of 55 to 60 cents. The 18-22 zero fuel oil advanced 5 cents to a range of 50 to 55 cents, and the below 18 fuel oil advanced from a range of 37½ to 40 cents, to a range of 40 to 45 cents.

Do You Remember?

From The Oil and Gas Journal Files

25 Years Ago

June 28, 1908

The Gypsy Oil Co. buys the J. E. Crosbie and Beacon Oil properties in the Glenn Pool, Oklahoma.

U. S. Bureau of Mines production figures for 1907 show the relative productiveness of the several oil states as follows: New York, 1,212,000 bbls.; Pennsylvania, 10,000,000 bbls.; West Virginia, 9,095,000 bbls.; Kentucky, 821,000 bbls.; Tennessee (included with Kentucky); Ohio, 12,207,000 bbls.; Indiana, 5,128,000 bbls.; Illinois, 24,282,000 bbls.; Kansas, 2,410,000 bbls.; Oklahoma, 43,524,000 bbls.; Louisiana, 5,000,000 bbls.; Texas, 12,323,000 bbls.; Wyoming, 9,000 bbls.; Colorado, 332,000 bbls.; California, 39,748,000 bbls.; other states (Michigan, Missouri and Utah), 4,000 bbls. Total United States, 166,095,000 bbls., or a daily average of 455,055 bbls.

20 Years Ago

July 3, 1913

George S. Bole and family have arrived in Tulsa from Robinson, Ill., and will make their home in that city.

The Canadian government has stopped drilling operations in Lake Erie at the request of farmers and fishermen.

The Mexican Oil Association has been organized with Dr. C. W. Hayes, Mexican Eagle Oil Co., president; E. J. Nicklos, Tampico Oil, Ltd., vice president; and T. Cresswell, Mexican Eagle Oil Co., secretary and treasurer.

There is a shortage of gas in Kansas towns as new wells fail to produce sufficiently to make up for the drain on the older wells.

Crude oil (all gravities) is posted at 88 cents per barrel in Kansas and Oklahoma; 83 to 93 cents in North Louisiana; 95 cents in North Texas; 80 to 95 cents in the Gulf Coast; $2.50 in Pennsylvania.

10 Years Ago

June 28, 1923

The largest fields in the Mid-Continent are Smackover, Ark., 155,350 bbls. per day; Burbank, Okla., 108,000 bbls.; and Tonkawa, Okla., 106,000 bbls. per day. In California, Santa Fe Springs produces 255,000 bbls.; Long Beach, 210,000 bbls.; and Huntington Beach, 110,000 bbls. per day.

The Prairie Oil & Gas Co. is prorating purchases and its own production in Oklahoma and Kansas in an attempt to stop overproduction, and other oil buyers are following suit.

Prices of oil securities are slipping and crude oil prices are threatened with cuts because of overproduction and the prospects of a big field in Powell, Texas. Refined prices are adjudged too high by L. V. Nicholas, president of the National Petroleum Marketers Association.

COMPLETE BULK TERMINAL

NEW YORK, June 26.—Replacing two separate and antiquated bulk plants, Colonial-Beacon Oil Co., Inc., has opened its new bulk terminal at Rochester, N. Y. The new plant is served by New York State Barge Canal shipments direct from the refinery and the Albany terminal.

The site occupied by the new plant was acquired several years ago when Colonial-Beacon took over the Monroe Union Oil Co., and consists of approximately 12 acres. The plant has sufficient barge canal frontage to permit of the docking of any barge that can navigate the canal.

East Coast Refined-Product Markets Move to Higher Levels as Crude Prices Advance

By A. E. MOCKLER
New York Bureau, The Oil and Gas Journal

NEW YORK, June 26.—Reflecting the further increases in crude oil quotations and the widespread improved outlook for the oil trade generally, the refined products markets in East Coast territory resumed their upward movement last week with a number of price increases actually put into effect, and others pending. Interest was centering in the tank car gasoline market, which developed considerable strength during the week. Prices quoted by leading refiners showed a greater variance during the period than has been the case for many months back as the general market lagged in following increases initiated in various markets by different refiners. Increases made during the week ranged from 15 to 25 points, and it was generally believed that the advances scored to date have been only "starters" to a general upward movement that will carry the market to considerably higher levels than those that prevailed earlier in the year.

Refinery Gasoline

Price revisions are coming so rapidly that the tank car sales departments of leading companies are themselves at a loss as to competitive prices at times. Out of the current flurry of price changes, however, it is expected that the market will probably settle, for the present at least, at an average of about 5½ cents per gallon for regular U. S. Motor grades and 5¾ to 6 cents for the high-octane material, pending further upward adjustments in crude oil quotations in the field.

Aviation Gasoline

There was a good demand for aviation gasoline reported during the week, and the market was steady. This grade has not advanced in conformity with the increases made in motor grades, and is still quoted at a range of 11 to 12 cents per gallon in the tank car market, with the tank wagon quotation in the metropolitan area 16 cents per gallon.

Tank Wagon Gasoline

Marketing of new grades of regular gasoline containing tetraethyl lead had cut somewhat into the volume of sales on premium grade motor fuels, notwithstanding the general policy on the part of refiners and marketers of failing to mention the presence of ethyl in these brands. The reticence of refiners in this connection is due as much to the belief that they may ultimately be able to refine a gasoline equal to the specifications of the present blend, without the addition of lead, as to their desire to protect their volume on premium grades, it is hinted.

Kerosene

In common with the remainder of the refined products market, kerosene was exhibiting signs of increased firmness during the past week. Leading sellers in the tank car market were firm at a minimum price of 5 cents per gallon for 41-43 water white, f.o.b. terminals, while one or two of the majors continued to hold firm at 5¼ cents, with indications that the general price level would move up to that figure. Demand continued active, with some distributors filling their storage in anticipation of higher prices in the immediate future.

While there were no price changes reported on kerosene for tank wagon delivery during the past week, the market tone was stronger, and it was felt that the next advance in the tank car market would be mirrored by a rise in retail quotations. The recent quarter cent increase to 5 cents in the tank car price did not affect tank wagon quotations, which had not been changed on the previous drop to 4¾ cents. Marketers reported that they were getting a substantial business, and demand in the New England territory remained so strong that California gasoline continues to move in at Fall River, Tiverton, and Boston in occasional shipments.

Furnace Oil

The market for domestic heating oils is now in its annual period of hibernation, and trading on the spot position last week was slack, with quotations unchanged on both tank car and tank wagon deliveries.

Considerable negotiation is in progress covering cargo shipments of furnace oil from the Gulf into local territory for the coming heating season, and a number of cargoes have been reported closed recently, some at prices which appear unduly low in view of the stronger tendency for refined products in general. Sellers out of the Gulf have since advanced their price views on heating oils for next season's delivery, however, and trading has slackened off somewhat as distributors continue dickering in an attempt to secure price concessions.

Gas Oil

Tank car movement of gas oil was holding up well throughout the past week, and the market continued in steady position at 4 cents per gallon for 28 gravity minimum oil in tank car lots, f.o.b. terminals. Contract deliveries accounted for the bulk of the week's gallonage.

The price outlook in the gas oil market is quite strong, and some interests are inclined to look for an early upward movement in quotations, in view of the strengthening in the position of the heavy oil market in general. Gas oil from California and the Gulf Coast is entering into quite strong competition with the product of East Coast refineries, however, and this condition is expected to hold down the local market.

Fuel Oil

Bunker "C" markets were all set for an increase in the posted quotation throughout the week, but the advance failed to develop, although it is generally conceded that the naming of a higher price level is but a matter of days. Refiners continue to post 75 cents per barrel, in bulk, f.o.b. terminals, with a charge of 5 cents per barrel for lighterage alongside within harbor limits. With the concession of 5 cents per barrel to contract buyers in the ocean-going steamship trade, this means a total price of 75 cents per barrel, delivered.

Diesel Oil

Tonnage was a little better during the past week, and the market was taking on a somewhat better tone. Contrary to earlier advices, it is now an open question as to whether Diesel oil prices will be moved up when the advance in bunker "C" oil is named. Some leading sellers in the Diesel oil field had hitherto indicated that the present quotation of $1.65 per barrel, bulk, at terminals, would be continued, but it is now stated on good authority that it is possible that whatever increase is named on "C" grade oil will also be made effective on Diesel.

Refiners report some improvement in the domestic demand for Diesel oil, and the tank car market is firmer, although sellers continue to offer 26-30 gravity oil in tank cars at 4 cents a gallon, f.o.b. refineries. While the domestic industrial gallonage is but a drop in the bucket alongside of marine consumption, the former market is steadily expanding and refiners are devoting increasing attention to this branch of their business.

Paraffin Wax

With the recent firming up in the price level having tended to slow down buying to a considerable extent, no further price changes were made during the past week, although the market was well maintained at previously prevailing levels on all grades of fully refined for domestic shipment. Consumers had covered on their prompt requirements prior to the latest price advances, and since that time have been remaining out of the market to a considerable extent, in an effort to secure concessions.

Petrolatum

This branch of the market is lagging behind other refined products in reflecting the inflation which has struck the oil market, and quotations were unaltered on all grades last week.

Lubs

Effective June 23 prices on bright stocks and cylinder oils were advanced one-half to 1 cent per gallon, revised quotations being as follows: 600 Warren E, 22¾ cents; 600 s.r. unfiltered, 19 cents; 650 s.r. unfiltered, 21¼ cents; 600 flash s.r., 22¼ cents; 630 flash s.r., 27¼ cents; bright stock, No. 8 color, 28½ cents; bright stock No. 6½ color, dil., 27½ cents per gallon. There was a fair buying movement reported in anticipation of the increases.

Exports and Imports of Refined Products; Receipts of California Oil in the East

NEW YORK, June 26.—In sympathy with the generally stronger conditions prevailing in refined products market, export gasoline prices were again marked up last week. U. S. Motor, for prompt and July lifting, was advanced one-eighth cent early in the week to 3⅝ cents and later scored a second advance, this one amounting to three-eighths cent, bringing the market up to 4 cents per gallon for this grade. On 60-62 400 endpoint, and 61-63 390 endpoint material, sellers advanced their quotations one-half cent per gallon, bringing the market up to 4⅛ cents, while 64-66 375 endpoint was marked up one-half cent to 4½ cents per gallon. Export kerosene was advanced by one-quarter cent per gallon at the Gulf during the week, bringing the market up to 4 cents a gallon for 41-43 prime white and 4¼ cents for 41 water white.

Petroleum Exports

The following table shows exports of principal refined petroleum products reported from the Port of New York during the three weeks ended June 17 (all figures in gallons unless otherwise noted):

	Week ended		
	June 17	June 10	June 3
Gasoline	9,000	40,000	92,000
Naphtha		4,000	
Kerosene	9,000	20,000	3,000
Fuel and gas oil			1,675,000
Lubricating oil	735,000	1,550,000	725,000
Petroleum, ref'd.	4,000	175,000	50,000
	Pounds		
Petrolatum	2,000		16,000
Paraffin wax	2,320,000	2,200,000	1,550,000
Refined	390,000	415,000	134,000
Scale	180,000	195,000	365,000
Lub. grease	940,000	305,000	435,000

Recent price advances in refined products in East Coast markets have tended to slow down export buying somewhat, and a similar condition prevails at the Gulf. However, buyers who normally draw their stocks from New York and other East Coast refining and exporting centers are not in advantageous position to replace this oil with refined products from Rumania or other competing exporting centers, although there are growing indications that some of this business is being diverted to refineries in the Caribbean area. Refineries in the latter territory are supplying considerable kerosene, gasoline and lubricating oil to South American and West Indian consuming marketers which previously drew the bulk of their imports from the U. S. East Coast refining area, and it is expected that this trend will continue as prices in the United States continue on the upward move.

Imports

Imports of crude and refined petroleum at the principal United States ports for the week ended June 17 totaled 544,000 bbls., a daily average of 77,714 bbls., compared with 591,000 bbls., a daily average of 84,429 bbls. for the previous week, and a daily average of 86,893 bbls. for the four weeks ended June 17. Details follow:

	Bbls. of 42 gals.
At Atlantic Coast Ports—	
New York	444,000
Philadelphia	190,000
Total	544,000

There were no imports through Gulf Coast ports during the week.

The week's imports comprised 416,000 bbls. of crude petroleum and 128,000 bbls. of fuel oil.

California Oil Receipts

Receipts of California crude and refined oil at Atlantic Coast ports during the week ended June 17 (there were no receipts of California oil at Gulf Coast ports during the period) totaled 317,000 bbls., a daily average of 45,286 bbls., compared with 386,000 bbls., a daily average of 55,143 bbls., for the previous week, and a daily average of 57,929 bbls. for the four weeks ended June 17. Of the week's receipts, 236,000 bbls. were received at New York.

Gasoline receipts accounted for 311,000 bbls. during the week, with 6,000 bbls. of California kerosene received during the period.

At the close of the week the following cargoes were reported afloat from California for East Coast ports:

For Fall River, Mass., 74,000 bbls. of gasoline on the Union Oil Co. of California tanker Cathwood.

For Philadelphia, 71,000 bbls. of fuel oil on the tanker Hoxbar.

NATURAL GASOLINE MANUFACTURE

Natural Gasoline Prices Improve Relative Position

The rapidly rising market for natural gasoline and other petroleum products might lead to an overly optimistic conclusion to be drawn in a summary of natural gasoline plant earnings covering the first half of the year which is just about to be drawn to a close.

The accompanying chart gives a graphic summary of these conclusions. It shows the relationship that has been maintained between natural gasoline and refinery gasoline and between the retail gasoline prices and crude prices.

In all instances the lines reflect the Mid-Continent market except that the retail price is shown as the average of filling station postings taken from scattered cities throughout the country after the tax had been deducted in each instance. This represents the net filling station price on the regular grade only.

During the five-month period this year from January 1 to June 1 prices were maintained at the lowest level for any similar period in the history of the natural gasoline industry. However, natural gasoline was not alone in this position as average retail prices, refinery gasoline prices and crude prices passed through the same period with about the same relative performance.

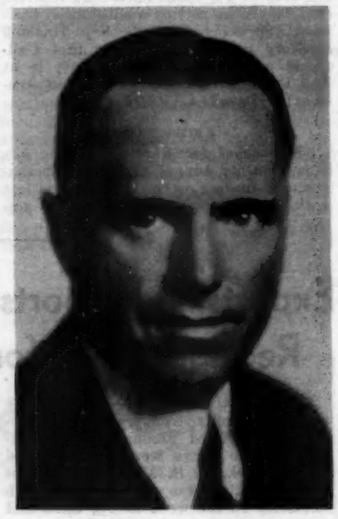
The chart shows one striking change in the relationship between gasoline prices and crude prices over the past two weeks. Natural gasoline prices have been approximately equal to crude for nearly a year and a half. At times during this period natural gasoline sold under crude oil. Then, on June 17 crude oil was advanced from 25 cents a barrel to 44 cents. At about the same time gasoline started on its way to a much higher level. The fact that natural gasoline prices and refinery gasoline prices have risen so markedly might lead to the conclusion that crude must follow or that there is danger that prices be advanced beyond the point where they could not be maintained without a crude advance.

This in turn seems entirely dependent upon the course of events in the East Texas area. If the new order of the Texas Railroad Commission is enforced there is a general belief an advance of another 25 cents is likely to be made, but if it is not enforced the advance will be pushed well into future months.

California Natural Gasoline Association Chooses Officers for Coming Year

N. H. Mull, general superintendent of natural gas and gasoline operations for the Texas Co. in California, was chosen president of the California Natural Gasoline Association, and H. L. Eggleston, manager of manufacturing for the Gilmore Oil Co., Ltd., was named vice president at its annual meeting this past week.

N. H. MULL
President



H. L. EGGLESTON
Vice President

Wallace McIlhany was again chosen association secretary and treasurer for the fourth year.

Mr. Mull has had a broad experience both in the industry and in the activities of the association. He is a graduate of the school of engineering at the University of California and was introduced to the oil industry in 1922 when he joined the Petroleum Midway Co. He became assistant superintendent of the company's gas operations and upon consolidation of the company's interests under the California Petroleum Corp. he was named superintendent of tests. In 1928 he was made division superintendent of the Los Angeles Basin natural gasoline operations. In 1929, when the Texas Co. took over the properties of the California Petroleum Corp., Mr. Mull was named general superintendent of the natural gas and natural gasoline operations of the Texas Co. on the Pacific Coast, which position he now holds. He is a charter member of the association and has served on the executive committee, board of directors and was vice president during the past year.

H. L. Eggleston, the association's vice president, received his basic engineering training at Yale and at the Sheffield Scientific School, after which he entered

(Continued on Page 38)

Resolution Seeks to Give Natural Full Recognition

Representatives of the natural gasoline industry who attended the Chicago meeting called by the American Petroleum Institute for the purpose of drafting a code of practices to be submitted to the Federal Government covering the operation of all phases of the oil business under the Industrial Recovery Act submitted the following resolution:

"Whereas, the production of natural gasoline is governed wholly by the production of crude oil and natural gas sales, and,

"Whereas, natural gasoline must be included in any estimate of total available supply, since it all goes into the motor fuel market by some route, therefore,

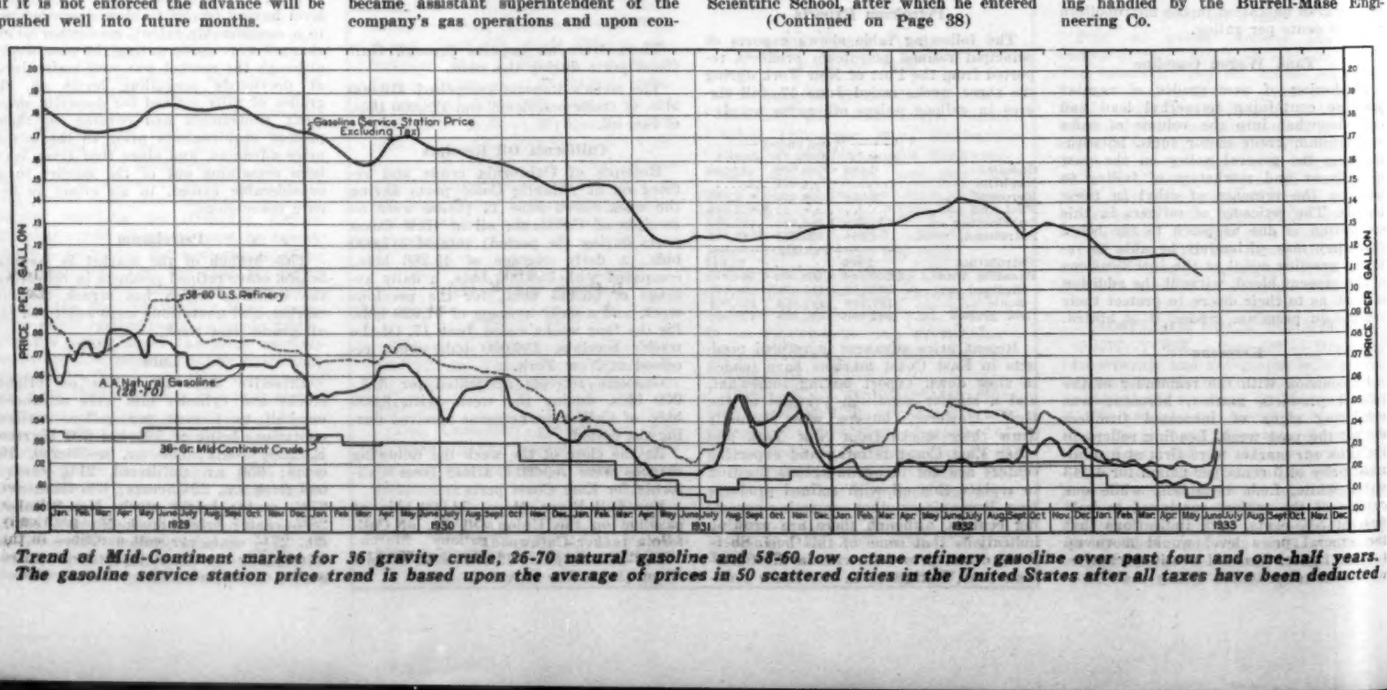
"Be it resolved, that this meeting instruct the correlating committee to include the term "natural gasoline" in each equation in the joint code which attempts to balance total available supply with total demand."

The resolution was approved by those formulating the marketing code and it is believed that when the final code for the oil industry is written by the correlating committee that natural gasoline, natural gasoline plant operations and sales will be given full consideration along with the provisions made for crude oil and refinery products. The general program of the government is intended to give assurance that production and demands will be balanced, and that prices will be advanced to a level that will permit more men to be returned to work and subsequently will result in profits to all.

MODERNIZE W. VIRGINIA PLANT

The Owens-Libby-Owens Glass Co. is rebuilding its natural gasoline plant at Charleston, W. Va., and when completed will process approximately 25,000,000 feet of gas daily. The modernized plant will process gas from the company's wells in that area and the residue will be burned in its plants for the manufacture of glass.

The gasoline content of the gas approximates .3 to .35 gallon per 1,000 feet which makes it necessary that the plant be designed to handle relatively large volumes of the gas considering the volume of natural gasoline to be recovered. All design and construction work are being handled by the Burrell-Mase Engineering Co.



Trend of Mid-Continent market for 36 gravity crude, 26-70 natural gasoline and 58-60 low octane refinery gasoline over past four and one-half years. The gasoline service station price trend is based upon the average of prices in 50 scattered cities in the United States after all taxes have been deducted

NEWS FOR SALES DEPARTMENTS

Minor Changes in Gasoline Demand in Newfoundland Area

CHATHAM, Ontario, June 24.—Official figures indicate that the granting last year of a monopoly to Imperial Oil, Ltd., by the Newfoundland government has had no appreciable effect on oil sales in that colony. The Newfoundland government granted the Imperial company the exclusive right to market petroleum products in return for the underwriting by the company of the major portion of a government bond issue. It was stated at the time that the company already had under competitive conditions a virtual monopoly of the trade.

Imports of petroleum products by Imperial Oil, Ltd., have averaged around 125,000 bbls. a year for some years, though the figures of kerosene, gasoline and other individual commodities have fluctuated. Comparative figures for the fiscal years ending June 30, 1931, and June 30, 1932, are as follows, in gallons:

	1931	1932	Last half of 1932
Kerosene	1,112,047	738,678	429,094
Lubricating oils.	252,346	225,335	134,826
Gasoline	2,744,417	3,013,429	1,427,348
Total	4,108,710	3,977,443	1,991,268

Under the monopoly agreement, royalties of 8 cents a gallon on gasoline, 15 cents a gallon on lubricating oils and 4 cents a gallon on all other petroleum products are collected to create a special fund to meet interest and sinking fund on the bond issue; but to offset this previous customs duties and sales tax were removed. Imperial Oil, Ltd., has been collecting and paying over to the special fund around $300,000 a year.

At the time the monopoly was granted the Imperial company agreed to sell white motor butane 65 octane number gasoline and water white 150 test kerosene at prices based on a cost of 8 cents per gallon of gasoline and kerosene, c.i.f. St. John's. This was a price of 24 cents a gallon for gasoline to wholesalers in St. John's, containers extra. The company also agreed to look after the vested interests of the Great Eastern Oil Co. by selling it petroleum products at a price 1½ cents a gallon under the prices for gasoline mentioned in the Loan Act of 1932.

Refuse to Exempt Aviation Fuels From Louisiana Tax

A Federal Court in New Orleans, La., in a decision handed down last week denied an application for an injunction and dismissed the bill of complaint brought by the American Airways, Inc., seeking to restrain the State of Louisiana from collecting a 5-cent per gallon gasoline excise tax.

The court, comprising, Circuit Judge Rufus E. Foster and District Judges Wayne G. Borah and Ben C. Dawkins, held that the tax was not for the privilege of engaging in interstate commerce nor upon an instrumentality of interstate commerce, as contended by the plaintiffs, but that it was a tax on the privilege of selling or using gasoline in the State.

Record of the case showed the company transported the gasoline from Texas in tank cars and stored it in tanks at Shreveport, and Arabi, La., from where it was trucked over the state highways to its airfields.

Make Several Changes in Sales Division of Standard Oil Co. of New Jersey

NEW YORK, June 24. — Several changes in the official and departmental personnel of the sales division of the Standard Oil Co. (New Jersey) and its subsidiary units are now being made effective. Changes in the manufacturing personnel were announced in the June 22 issue of The Oil and Gas Journal, page 21. Most of the changes were occasioned by the new retirement policy of the Standard of New Jersey which has brought about the retirement of several persons who have held responsible positions in the companies' varied operations.

A. Clarke Bedford, president of the Colonial Beacon Oil Co., Inc., is transferring his headquarters to New York, where he will act as co-ordinator of sales for domestic subsidiaries, under the direction of Robert G. Stewart, a director of the holding company, under whose guidance the recent unification of the marketing operations of domestic subsidiaries was carried out. Mr. Bedford will retain his post as president of Colonial Beacon.

K. H. Quick, traveling secretary to Walter C. Teagle, president of Standard Oil Co. (New Jersey) will become secretary and assistant to Mr. Stewart in the new sales department. Under the revised marketing setup of the principal subsidiaries, the sales management of the Standard Oil Co. of New Jersey, Colonial Beacon Oil Co., Inc., Standard Oil Co. of Pennsylvania, and Standard Oil Co. of Louisiana, will be centralized and consolidated at 26 Broadway. The sales work of the united marketing departments of these companies is now being handled by three divisions. C. G. Sheffield, vice president of Standard Oil Co. of New Jersey, is manager of retail sales with R. N. Keppel as assistant manager, with J. E. Skehan, vice president of Standard Oil Co. of Louisiana, manager of service station sales, aided by J. R. Riddell, vice president of Colonial Beacon, while E. A. Holbein, a director of the Delaware company, is manager of tank car sales, with Charles E. Conrad as assistant sales manager.

Sales Research Department

In line with the change in marketing policy, two divisions have been added to the sales department. Dr. Frank M. Surface, for six years assistant director of the Bureau of Foreign and Domestic Commerce at Washington, and well known as an expert on economics and marketing statistics, has joined the company to organize a sales research department, and is now engaged in working out sales quotas for the various branches in the field on the basis of the potential business available for each product.

The other new division is the sales promotion and sales training department, under the direction of R. R. Cunningham. This section will develop plans and methods for promoting the sale of the company's products and for communicating these policies to the field. In addition, training schools, literature, etc., service station salesmen and others in the sales department will be instructed in uniform methods of selling and serving the public. Mr. Cunningham joins the Standard organization from the Hudson Motor Car Co., of which he was director of marketing development.

Another important change scheduled for July 1 is the selection of C. G. Sheffield to the presidency of the Standard Oil Co. of Pennsylvania, succeeding J. H. Senior, who retires. A. A. Lacazette will become president of the Pennsylvania Lubricating Co.

Under the revised marketing arrangement, with company-owned retail stations and dealer stations throughout the domestic territory transferred into a uniform chain of "Esso" stations, advertising is now cutting across company lines, and the situation has led to changes in the advertising committee, previously under the direction of F. H. Bedford. J. A. Donan, who was in charge of advertising for the Standard Oil Co. of New Jersey, becomes advertising manager in the new sales organization. Mr. Donan is well known, having formerly been in the public relations department with Northrop Clarey. He was transferred to the sales department in 1927.

A. S. Pawling, former sales promotion manager for the Atlas Supply Co., and a pioneer in the development of tire and battery sales by oil companies, will be placed in charge of tire and accessory sales for all domestic subsidiaries.

Succeeding E. M. Clarke, who retires, Robert L. Hague, former vice president and general manager of Standard Shipping Co., has been elected to the presidency of this marine subsidiary. Mr. Hague is one of the best known men in American shipping circles.

Traffic Department

A. G. Phelps will be moved up to the position of manager of the traffic department of the Standard Oil Co. of New Jersey, succeeding R. W. Ostrander.

E. D. Sheffe, manager of the Newark office for the past several years, will become assistant traffic manager. Mr. Sheffe is a well known traffic expert, a licensed practitioner before the Interstate Commerce Commission.

Both the manager and assistant manager of the accounting department of Standard Oil Co. of New Jersey retire July 1. A. Caemmerer will be appointed manager to succeed H. F. Davis, and George Ingram will succeed G. W. Dolliver as assistant manager.

ADDITIONAL "Q" LICENSEES

Several additional companies have been added to the "Q" licensees of the Ethyl Gasoline Corp. These companies are licensed to sell the "Q" brand gasoline, the content of tetra ethyl lead not to exceed 1½ c.c. Several large companies throughout the United States are ethylizing their house brand gasolines under the "Q" license.

In addition to the companies listed in the May 25 issue of The Oil and Gas Journal, page 23, the following companies have secured the "Q" license: Continental Oil Co., Continental Refining Co., Crystal Oil Refining Corp., Globe Oil & Refining Co., Kanotex Refining Co., Kendall Refining Co., Lion Oil Refining Co., Oil Creek Refining Co., Producers & Refiners Corp., and Spartan Oil Corp.

TAX COLLECTIONS INCREASE

Reflecting the steady growth in East Texas refining capacity there has been a rapid gain in gasoline tax collections for that area. Large quantities of gasoline are moved out of that area by tank trucks to dealers and jobbers in Texas. In February the state gasoline tax was collected on 2,826,847 gallons; March, 4,011,227 gallons; and April 5,534,313 gallons.

Jobber in Chicago Seeks Restoration of Larger Margins

CHICAGO, June 24.—Restoration of the larger Q.D.A.'s to resellers is urged in an appeal made by L. C. H. Groeger, representative of Waggoner Service Stations, Inc., Chicago, to Gen. Hugh S. Johnson, administrator under the National Industry Recovery Act. The discount off the service station price in Chicago will be reduced 1.5 cents on the Ethyl grade, 1 cent on the regular grade and 0.5 cent on the third grade, effective July 1. Outside of metropolitan Chicago area the reductions will be applicable to the total of discount and rental allowance, so that while the discounts on the regular and third grade are unchanged, the rental allowance is standardized at 0.5 cent per gallon. Where higher rentals cannot be changed the commission or discount based on the service station price will be revised to lower the total of Q.D.A. and rental in line with other contracts. The discount on Ethyl Gasoline is reduced from 3 cents to 2.5 cents.

"Waggoner Service Stations, Inc., representing gasoline dealers and service station operators," Mr. Groeger's letter states, "appeals to you for a fair and just margin of profit on gasoline sales in order that we may keep our small independent business establishments from disaster and oblivion due to any unfair price fixing which may be inadequate for us to sustain ourselves in business.

"We find ourselves in a different situation from that of major oil companies having oil wells, refineries and pipe line subsidiary companies, whereby earnings may be accumulated at the other end whch tends to offset the losses of the marketing division of these companies having a combination of facilities. Inad-

Affirm Refusal of "Germ Processed" Registration

WASHINGTON, D. C., June 24.—The denial of registration of the trade-mark for lubricating oil and greases by the Continental Oil Co. of Ponca City, Okla., known as "Germ Processed" has been denied by the examiner of trade-marks, and this denial has been affirmed by the first assistant commissioner.

The registration was first refused upon the ground that the mark is merely descriptive and for the further reason that applicant is estopped from asserting any claim for registration of the notation by reason of the disclaimer filed in connection with and as a condition precedent to obtaining registration No. 385,697 issued to the applicant.

"The examiner appears to have withdrawn the holding that the notation is merely descriptive," says the first assistant commissioner, "basing such withdrawal upon the decision in Ex Parte Continental Oil Co. rendered March 10, 1932, in which the present applicant was held entitled to register the notations "Germoil" and "Germol" for the same class of goods. It is doubtful if that decision should be construed as holding that the notation now sought to be registered is not descriptive since this question was not there involved and that decision merely agreed with the applicant's contention that the mark there then under consideration was fanciful. The notation of the instant case is more specifically descriptive of the process described in the Homer Behm patents which were noted in that former decision.

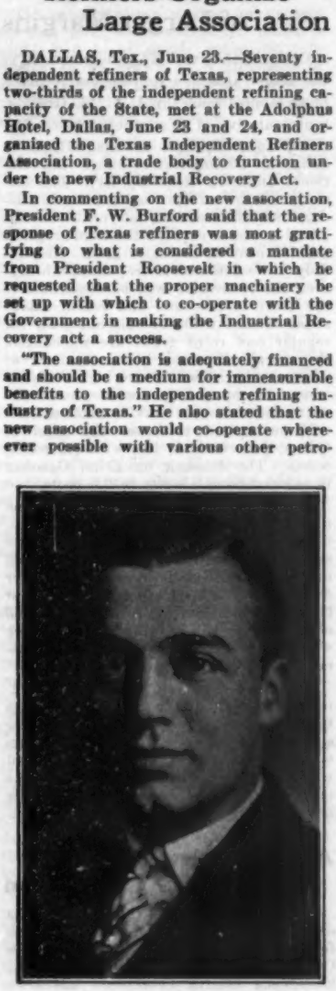
NEWS FOR PETROLEUM REFINERS

Texas Independent Refiners Organize Large Association

DALLAS, Tex., June 23.—Seventy independent refiners of Texas, representing two-thirds of the independent refining capacity of the State, met at the Adolphus Hotel, Dallas, June 23 and 24, and organized the Texas Independent Refiners Association, a trade body to function under the new Industrial Recovery Act.

In commenting on the new association, President F. W. Burford said that the response of Texas refiners was most gratifying to what is considered a mandate from President Roosevelt in which he requested that the proper machinery be set up with which to co-operate with the Government in making the Industrial Recovery act a success.

"The association is adequately financed and should be a medium for immeasurable benefits to the independent refining industry of Texas." He also stated that the new association would co-operate wherever possible with various other petro-



F. W. BURFORD

leum trade bodies in the formulation of a code of practices under which the oil business is expected to function.

A board of directors was chosen on the first day, and these men in turn elected the officers, who are as follows, including the president as mentioned above: Vice presidents, E. W. Moutray, Moutray Oil Co., Abilene; R. G. Cocanower, Olney Oil & Refining Co., Wichita Falls; D. W. Hovey, Republic Oil Refining Co., Houston; Dan Danciger, Danciger Refineries, Inc., Fort Worth; executive secretary, J. B. Gambrell, Tower Petroleum Building, Dallas; treasurer, C. R. Starnes, Texas Oil Products Co., Gladewater.

The board of directors consists of F. W. Burford, East Texas Refining Co.; H. B. May, Arrow Refining & Producing Co., Fort Worth; R. G. Cocanower, Olney Oil & Refining Co., Wichita Falls; C. R. Starnes, Texas Oil Products Co., Gladewater; E. W. Moutray, Moutray Oil Co., Abilene; G. L. Rowsey, Taylor Refining Co., Taylor; Dan Danciger, Danciger Refineries, Inc., Fort Worth; C. M. McNutt, McNutt Oil & Refining Co., El Paso; F. W. Fischer, Lake Refining Co., Tyler; D. W. Hovey, Republic Oil Refin-

Continued on Page 38)

Name Representatives of Associations to Emergency National Committee

CHICAGO, June 24.—Refiners and marketers acting as representatives of associations throughout the United States in the formulation of their part of a code of fair marketing practices for the petroleum industry under the national Industrial Recovery Act, today named 28 men to represent them on the Emergency National Committee of the oil industry. Although the 13 selections announced by William R. Boyd, executive vice president of the American Petroleum Institute, included a number of well known "independents," the cause of the smallest units of the business was further protected by permitting the "militant independents" to elect 15 members to the National Emergency Committee. Mr. Boyd announced the following members on the committee:

E. G. Seubert, Standard Oil Co. (Indiana); C. E. Arnott, Socony-Vacuum Oil Corp.; H. M. Dawes, Pure Oil Co.; W. M. Irish, Atlantic Refining Co.; W. T. Holliday, Standard Oil Co. of Ohio; W. E. Smith, Standard Oil Co. of Kentucky; W. G. Skelly, Skelly Oil Co.; E. B. Reeser, Barnsdall Oil Co.; J. H. Vickers, Vickers Petroleum Co.; L. P. St. Clair, Union Oil Co. of California; Jacob France, Mid-Continent Petroleum Corp.; D. J. Moran, Continental Oil Co., and Paul G. Blazer, Ashland Refining Co.

Selections made among the independent marketing associations numbered eight and were announced by Carl Beroth, Acme Petroleum Co., of Chicago. These members are as follows: W. D. Hudson, Tennessee Oil Men's Association; E. V. Weber, Ohio Petroleum Marketers Association; Russell S. Williams, Indiana Independent Oil Men's Association; Tom Glasgow, Virginia-Carolinas Association; Barney L. Majewski, Illinois Petroleum Marketers Association; F. H. Rolapp, Los Angeles, Calif.; E. E. Hadlick, Northwest Petroleum Association; H. E. Koch, Buffalo Civic Defense League, gasoline division.

Refinery Representation

Six of the delegates were named to represent the refiners of the various districts of the country as follows: Oklahoma, Howard Bennette, Western Petroleum Refiners Association; Kansas, A. L. Derby, Derby Oil Co.; Appalachian group, H. A. Logan, Carnegie Refining Co.; Louisiana-Arkansas, Col. T. H. Barton, Lion Oil & Refining Co.; Texas, Roy B. Jones, Panhandle Refining Co., and California, W. J. Reid, Hancock Oil Co.

One delegate was named to represent the natural gasoline branch of the industry, Ray E. Miller, secretary of the Natural Gasoline Association of America, Tulsa, Okla.

Every member of the Emergency National Committee shall have the right to vote in person or by proxy. Delegates, and their associations, participating in the refiners and marketers conference were as follows:

Col. H. T. Klein, C. E. Arnott, E. S. Hall, J. W. Carnes, Allan Jackson and W. T. Holliday, American Petroleum Institute; H. E. Koch, Buffalo Civic League, gasoline division; F. J. Moore, C. R. Rosenthal, A. D. Kling, Chicago Burning Oil Distributors Association; E. B. Gilmore, California Natural Gasoline Association; C. S. Jones, Earl B. Gilmore, L. P. St. Clair, California Oil & Gas Association; C. H. Pulley, Chicago Public Garage Operators Association; E. W. Kruse, Elmer H. Benz, A. C. Michaelson, Chicago Service Station Operators Association; W. E. Thomas, Colorado Jobbers Association; J. R. Sloane, Frank Ratcliffe, Connecticut Valley Independent Marketers Association; J. M. Koch, Dade County Florida Dealers Association; J. Pomfret, E. F. Fouts, D. W. Dworman, Detroit Lubricating Oil Men's Association; Neil Staebler, A. W. Horton, P. Kempf, Dixie Distributors of Nine States.

F. C. Hart, W. C. O'Meara, Allen Tint, William Godfrey, John Nelson, Eastern Independent Oil Marketers Association; Arthur Phillips, C. R. Burnett, F. V. Bakeman, Essex County Oil Dealers Association; James A. Gilmore, A. D. King, W. E. Beanway, E. E. Hadlick, C. J. Mullins, Furnace Oil Distributors of St. Louis; R. W. Jones, R. C. Shoup, R. W. Gober, Georgia Independent Oil Men's Association; B. L. Majewski, Carl Beroth, Melville C. Hill, G. A. Primm, Illinois Petroleum Marketers Association; J. M. Cushman, M. L. Long, A. L. Lommel, Iowa Petroleum Association; I. M. Bailey, E. R. Bust, Independent Oil Dealers Association of the Carolinas; J. Lawrence Hill, H. S. Sparr, Independent Oil Dealers Association of Monroe County, New York; F. V. Bakeman, Arthur Phillips, C. R. Burnett, Indepeadent Oil Dealers Association of New Jersey; W. C. O'Meara, S. Burwen, Warren Keith, L. Rosenfield, L. D. Pierce, Independent Oil Men's Association of New England; Wiley Moore, Russell B. Brown, C. E. Buchner, Wirt Franklin, Independent Petroleum Association of America; J. E. Lockwood, K. T. Wiedemann, H. L. Presthold, R. E. Christopherson, C. E. Gauer, Independent Trackage Association of America, Chicago; C. E. Gauer, Harry Atchison, M. R. Lloyd, Independent Trackside Association of Chicago; W. H. Godfrey, L. Hoffman, Independent Wholesalers Association of Philadelphia; Russell Williams, C. E. Foreman, H. F. Davis, Max L. Wickersham, Indiana Petroleum Association; A. L. Derby, A. C. Carpenter, J. A. Motter, Kansas Oil Men's Association; E. J. Jones, William Lynch, Morris Graves, The Kendoilers, Bradford, Pa.; H. L. Clay, C. E. Bauer, W. A. Stoll, Kentucky Petroleum Marketers Association.

T. M. Martin, L. C. Grosjean, Louisiana-Arkansas Refiners Association; T. A. Telfer, A. J. Hedlund, E. W. Fawcett, K. C. Baker, G. L. Bodle, Lubricating

Continued on Page 38)

CHANGES IN HYDRO COMPANY

NEW YORK, June 24.—R. P. Russell, general manager of the Hydro Engineering & Chemical Co. and of the development division of the Standard Oil Development Co., will assume additional supervision of all general technical activities not hitherto consolidated, including research and development project carried out under contract at laboratories and plants now owned by the development group. N. E. Nock, in charge of Hydro company's office, effective July 1 will be made manager of accounting and general offices of the development group at the Bayway laboratory.

The above promotions are among the changes to be made effective in the research and development subsidiaries of the Standard Oil Co. of New Jersey. Other changes, including the election of Frank A. Howard as president of the Standard Oil Development Co., were previously announced.

To Install New Still at Bradford Refinery of Sloan & Zook Co.

The Sloan & Zook Refining Co. is planning the immediate construction of 1,500-bbl. vacuum still at its Bradford, Pa., refinery. The Sloan & Zook interests, which are large producers of Pennsylvania grade crude oil, recently took over a shutdown refinery at Bradford and have organized a refinery unit to recondition and operate the plant.

The refinery has a crude oil capacity of 1,000 bbls. daily and is equipped for the manufacture of Pennsylvania grade lubricating oils and wax. The new unit will add to the refinery's capacity and permit a larger yield of lubricants from the crude.

Officers of the refining company are R. T. Zook, president; W. T. Sloan, vice president; C. T. Rickerson, secretary; W. T. Sloan, treasurer, and Paul H. Zook, general manager.

Complete Improvements at Associated Oil Refineries

SAN FRANCISCO, Calif., June 23.—Associated Oil Co. has completed preliminary test runs on the new cracking units recently constructed at its Avon and Watson refineries and has placed both plants in commercial operation. Cost of these units was approximately $1,000,000.

At the Avon refinery in the San Francisco Bay region, the throughput of the cracking plant has been increased 5,000 bbls. per day, requiring also the installation of additional boilers for increased steam production and doubling of the size of the treating and rerun plants.

At Watson, near Los Angeles, the refinery facilities have been redesigned to subject the fuel oil bottoms, obtained from flashing off the light fractions of crude, to a viscosity breaking operation. The new furnace has a charging capacity of 7,500 bbls. per day.

SUN BUILDS DIESEL TANKERS

NEW YORK, June 26.—Sun Oil Co. has started construction on two new oil tankers at its shipbuilding yard at Chester, Pa. The new tankers will be similar to the other tankers in the company's fleet, with a length of 500 feet, but they will be propelled with Sun-Doxford Diesel engines, giving a speed of 15 knots. The present ships have 3,000-horsepower and a speed of 12.5 knots.

In recent weeks Sun has brought out all of its idle tankers, and in addition has chartered three additional tank vessels to take care of its increasing business. The company owns and operates a fleet of 15 tankers in all, eight of which are now carrying gasoline between California and Marcus Hook, Pa., while four others are moving crude in the same run. The other three are operating between Gulf and North Atlantic ports, while the chartered tankers, W. S. Rheems, K. R. Kingsbury and Trimountain, are being used for special runs.

WYOMING PLANT OPERATING

CASPER, Wyo., June 24.—The refinery built on the Wyoming High-Grade Oil Co.'s lease in the SE cor. Section 18-46-83, Weston County, Wyoming, by Jack Eaton and Joe Dornacher started operation this week. The plant is built along modern lines and is expected to turn out a high percentage of recovery of marketable products.

Michigan Railroads Can Lease Right of Way for Oil

MOUNT PLEASANT, Mich., June 26. The Michigan Supreme Court has ruled that railroads in Michigan may lease their right of way for oil and gas drilling purposes. Railroad right of way at the present time extends through the most prolific gas areas developed in the State, the Broomfield and Vernon Pools of Isabella County and the Clare Pool of Clare County. A right of way also extends through the Leaton, Isabella County, oil pool.

It has been the plan of the State Conservation Department to have gas and oil wells spaced to preserve the natural resources of the State and to make for the greatest life of the wells and the field in general. With a few exceptions, gas wells have been drilled one to 40 acres and oil wells one to 10 acres. In Mecosta County, where the Taggart interests recently struck a 4,000,000-foot gas well, their second test has been placed a half mile away.

Drilling on railroad right of way will upset this plan of spacing. For the adjoining property owner to protect his mineral rights, wells must be drilled much closer than the one to 40 and one to 10 acre program. The court has held that the chief issue is whether such drilling endangers public safety or interference with the operation of the railroad.

For the interest of the State, it may be strongly urged that the decision be not abused and that if the railroads do engage in prospecting to any degree on their rights of way that such drilling will be done, if possible, in the best interests of the oil and gas business in general.

The opinion was the outcome of a test suit brought by former Atty. Gen. Paul W. Voorhies against the Pere Marquette Railroad Co., which had leased its right of way in Central Michigan to W. J. Sovereign of Bay City. Mr. Voorhies argued that the lease was invalid and it exceeded the railroad's charter powers, but the court dismissed the information, holding the railroad has the right to make any use of its property it sees fit as long as it does not endanger the public safety or interfere with the proper operation of the railroad business.

The court ruled: "It is well known that oil and gas are fugitive products and may be carried away by operations on adjacent lands. The plaintiff (railroad company) has a right to stop such drainage and the only way it can be done is by drilling a well and extracting oil and gas from its property. Being the absolute owner, the railroad has a right to deal with its surplus property as freely as an individual except that its operations must not interfere with its railroad business and seriously endanger public rights." The court pointed out that the well was located on a comparatively unimportant branch line.

In his pleadings, Mr. Voorhies took the position that the statutes covering railroad operations give to the carrier only the right to operate a transportation system.

The well is 7 feet from existing Pere Marquette tracks and is only 12 feet from the adjoining property line. In the event oil or gas is discovered, it would require leaseowners on the adjoining property to drill an offset that would be no more than 24 feet from the well on the railroad right of way. This action would be contrary to conservation of natural resources and might endanger the life of the field, it was pointed out.

The Pere Marquette Railroad not only routes through the Broomfield gas field but also through the Clare gas field and the Leaton oil pool. Much of the right of way is under lease to Mr. Sovereign of Bay City.

In December, 1931, a case was carried to the Supreme Court involving the drilling of right of way land. At that time an injunction restraining the Pere Marquette and Mr. Sovereign from drilling on a portion of the right of way was dissolved by court order. The court held that only the State could raise the question whether the railroad had a right to engage in other forms of business. However, the case differed from the one just heard, as the question was raised by an adjoining property owner. This case involved the drilling of a well in the Leaton territory. After the injunction was dissolved the well was never drilled. Later, Mr. Sovereign drilled a well on Pere Marquette right of way in the heart of the Clare gas field.

TANK WAGON CHANGES

(Continued from Page 24)

Standard Oil Co. of Kentucky advanced the gasoline tank wagon and station prices one-half cent June 19 to equalize increase in Federal tax and on June 21 advanced all prices 1 cent.

Continental Oil Co. advanced gasoline tank wagon and station prices 1 cent in Idaho and Utah on June 26.

Magnolia Petroleum Co. advanced the gasoline tank wagon and station prices to 14 cents and 16 cents throughout Oklahoma June 21, and on the same date advanced kerosene to 6½ cents in Tulsa and Muskogee, and to 7½ cents in Oklahoma City.

Effective June 21, the Standard Oil Co. (Indiana) posted the following schedule of prices for Staxolex fuel:

Effective June 21, 1933, prices f.o.b. Chicago, tank wagon prices: No. 1 (36-40 lt. stw. zero), 100 gallons or more, 6¾ cents; No. 2 (30-34 stw. zero), 100 gallons or more, 6¼ cents; No. 3 (22-26 zero), 100 gallons or more, 5.75 cents; No. 4 (12-16 zero), 300 gallons or more, 5 cents. Viscosity of No. 4, 90-115 at 100° F.; No. 5, 4.5 cents; for less than specified quantities, add 1 cent.

June 27 the company posted another advance with prices as shown in the table printed in its regular position on this page.

O. L. BODENHAMER DIES

SHREVEPORT, La., June 26.—O. L. Bodenhamer, El Dorado, Ark., former national commander of the American Legion, was fatally burned, dying in a Shreveport Hospital. Mr. Bodenhamer, visiting one of his leases in the East Texas Field, struck a match to light a cigarette, which ignited free gas drifting near the ground from nearby wells. R. C. Cook, superintendent of the lease, was also badly burned and is in a Henderson hospital.

CRUDE OIL PRICE CHANGES

(Continued from Page 24)

prices were revised upward as a rule by companies which were paying a lower scale than others, and prices are now uniform as far as the large purchasers are concerned.

The South Penn Oil Co. and other purchasers advanced all grades of Pennsylvania Grade oil 10 cents per barrel, effective on June 26, and all purchasers are reaching out for oil in the Eastern fields. The restrictions in the Bradford and Allegany Fields being off, those two pools may be expected to show a gradual but steady increase in production. Restrictions are off in all fields in the Pennsylvania Grade territory.

The Continental Oil Co., effective June 17, posted Cat Creek, Mont., 62 cents; Big Muddy, Wyo., 45 cents; Florence, Colo., 30 cents. Fort Collins and Wellington, Colo., crudes automatically take the Salt Creek prices, which are on a Mid-Continent gravity basis.

The South Penn Oil Co., effective June 27, advanced the price of Corning, Ohio, crude oil 10 cents per barrel.

Crude Oil Prices

(Continued from Page 23)

Price depends on length of pipe line haul to plant at Oil City.

Kelly's Creek, W. Va. 1.12

Rocky Mountain States

Iles, light (June 17, 1933)	$ .40
Iles, heavy (June 17, 1933)	.24
Florence, Colo. (June 17, 1933)	.30
Fort Collins and Wellington, Colo. (June 17) (See Salt Creek prices)	
Cat Creek, Mont. (June 17, 1933)	.62
Big Muddy (June 17, 1933)	.45
Dutton Creek, Wyo. (June 17, 1933)	.34
Frannie, light (June 17, 1933)	.31
Frannie, heavy (June 17, 1933)	.30
Salt Creek and La Barge (June 17, 1933)	
See Stanolind Mid-Continent price schedule	
Grass Creek (June 17, 1933)	.62
Grass Creek, heavy (Dec. 15, 1932)	.45
Elk Basin, light (June 17, 1933)	.62
Rock Creek (June 17, 1933)	.52
Lance Creek (Dec. 16, 1932)	.92
Poison Spider (Mar. 5, 1931)	.70
Hudson (June 2, 1931)	.65
Lander (Mar. 5, 1931)	.40
Rex Lake (Feb. 21, 1930)	1.10
Osage (Jan. 18, 1933)	.52
Lost Soldier (Apr. 12, 1932)	.80
Hamilton Dome (Dec. 16, 1932)	.35
Torchlight (June 17, 1933)	.62
Greybull (June 17, 1933)	.62
Pondera (June 17, 1933)	.76
Sunburst, Mont. (June 17, 1933)	.80
Hogback, N. Mex. (June 17, 1933)	.65
Lea County, N. Mex. (See Note)	.30
Maljamar (June 19, 1933)	.35
Artesia-Jackson (June 19, 1933)	.35

Note—Salt Creek, Cat Creek, Dry Creek, Dallas-Derby, Hudson, Greybull, Hogback, and Iles by Stanolind Oil & Gas Co. and remainder by Ohio Oil Co. Both companies posted Grass Creek light and Elk Basin. Lost Soldier posted by Producers & Refiners Corp. Artesia, Jackson and Maljamar posted by Continental Oil Co. Lea County, effective June 19, by all purchasers; Fort Collins, Wellington, Orchard, Florence, Big Muddy, Cat Creek, Rattlesnake and Table Mesa, by Continental Oil Co. Osage posted by Arro.

*Continental Oil Co. †Ohio Oil Co.

Middle Western States

OHIO OIL CO.

(Effective June 16, 1933)

Lima	$0.75
Wooster (May 8, 1933)	.80
Illinois	.67
Indiana	.45
Princeton	.67
Plymouth	Shut in
Western Kentucky	.62
Midland, Mich. (May 8, 1933)*	.75
Somerset, Ky. (June 20, 1933)	.80
Muskegon, Mich. (Mar. 27)	See note

*Posted by Pure Oil Co. Producers Pipe Line Co. pays 5 cents per barrel over Pure Oil Co.'s posted price. Muskegon: All companies pay $1 per barrel effective March 27. Somerset, Ky., crude purchased by Ashland Refining Co., Ashland, Ky., and posted price includes premium.

Canada

Ontario (Jan. 18, 1933):	
Petrolia*	$1.75
Oil Springs*	1.80
Turner Valley†:	
Crude oil, 31°-35.9° (Jan. 24, 1933)	1.41
Crude oil, 36°-40.9° (Jan. 24, 1933)	1.96
Crude oil, 50° up (Jan. 24, 1933)	2.41
Discolored naphtha (Jan. 24, 1933)	2.56
Crude naphtha (Jan. 24, 1933)	1.83

*Imperial Oil, Ltd. †Imperial Oil, Ltd., and Regal Oil & Refining Co.

Mexico

Panuco*	$0.375

*F.o.b. ship, based on May transactions and exclusive of production and export taxes and bar dues.

California Crude Oil Prices

STANDARD OIL CO. OF CALIFORNIA

(Effective June 26, 1933)

For current purchases of crude oil at the well (unless otherwise specified). (All gravities above those quoted take highest price offered in that field.

	Signal Hill	Seal Beach, Alamitos Heights	Huntington Beach	Inglewood	Playa Del Rey*	Olinda-Brea Canyon	Athens, Rosecrans, Domingues	Torrance	Richfield	Whittier, La Habra	Montebello	Coyote Hills	Santa Fe Springs	Midway-Sunset, Elk Hills, Buena Vista Hills	Lost Hills	Coalinga
14-14.9	$0.55	$0.55	$0.55	$0.55	$0.55	$0.55	...	$0.55	$0.55	$0.55	$0.55	$0.55	...	$0.52	$0.52	$0.52
15-15.9	.55	.55	.58	.58	.55	.58	...	.55	.55	.55	.55	.55	...	.52	.52	.52
16-16.9	.56	.56	.60	.61	.58	.61	...	.57	.55	.57	.55	.55	...	.57	.52	.52
17-17.9	.57	.55	.62	.64	.61	.64	...	.60	.59	.60	.55	.57	...	.52	.53	.52
18-18.9	.60	.56	.65	.67	.64	.67	...	.62	.62	.62	.55	.60	...	.52	.56	.52
19-19.9	.62	.60	.68	.70	.67	.69	...	.65	.66	.65	.55	.62	...	.54	.59	.52
20-20.9	.66	.63	.71	.73	.70	.72	...	.68	.69	.68	.55	.65	...	.57	.62	.53
21-21.9	.69	.67	.73	.77	.73	.75	...	.70	.72	.71	.58	.68	$0.60	.61	.65	.56
22-22.9	.71	.70	.76	.80	.76	.77	...	.73	.75	.74	.60	.71	.64	.65	.68	.59
23-23.9	.74	.73	.78	.82	.79	.80	$0.68	.75	.78	.76	.64	.73	.67	.69	.70	.61
24-24.9	.77	.77	.81	.86	.82	.82	.71	.78	.82	.79	.67	.76	.70	.72	.73	.64
25-25.9	.80	.80	.83	...	.85	.85	.75	.80	.85	...	.71	.79	.73	.76	.76	.67
26-26.9	.82	.83	.86	...	.88	.88	.79	.83	.88	...	.75	.82	.76	.80	.79	...
27-27.9	.85	.87	.88	...	...	.91	.82	...	.92	...	...	.84	.80	.83	.81	...
28-28.9	.88	.90	.91	...	...	.94	.86	...	.95	...	...	.87	.83	.87	.84	...
29-29.9	.90	.93	.93	...	...	...	.89	...	.98	...	...	.90	.86	.91	.87	...
30-30.9	.93	.97	.96	...	...	...	.93	...	...	...	...	.93	.89	.95	.89	...
31-31.9	...	...	...	...	...	...	.97	...	...	...	...	.95	.92	.98	...	...
32-32.9	...	...	...	...	...	...	1.00	...	...	...	...	.98	.96	1.02	...	...
33-33.9	...	...	...	...	...	...	...	...	...	...	...	1.01	.99	1.06	...	...
34-34.9	...	...	...	...	...	...	...	...	...	...	...	1.03	1.02	...	...	...
35-35.9	...	...	...	...	...	...	...	...	...	...	...	...	1.05	...	...	...
36-36.9	...	...	...	...	...	...	...	...	...	...	...	...	1.08	...	...	...
37-37.9	...	...	...	...	...	...	...	...	...	...	...	...	1.11	...	...	...
38-38.9	...	...	...	...	...	...	...	...	...	...	...	...	1.14	...	...	...

Note—The Union Oil Co. met all Standard Oil Co. of California prices in fields where both companies purchase, and posted as follows in East Coyote: 14 to 15.9 degrees, 55 cents; 16-16.9, 57 cents; 17-17.9, 60 cents; 18-18.9, 62 cents; 19-19.9, 65 cents; 20-20.9, 68 cents; 21-21.9, 71 cents; 22-22.9, 74 cents; 23-23.9, 76 cents; 24 degrees and over, 79 cents. Santa Paula, 14 to 18.9 degrees, 55 cents; 19-19.9, 57 cents; 20-20.9, 60 cents; 21-21.9, 62 cents; 22-22.9, 65 cents; 23-23.9, 67 cents; 24-24.9, 70 cents; 25-25.9, 73 cents; 26-26.9, 75 cents; 27-27.9, 77 cents; 28-28.9, 80 cents; 29-29.9, 83 cents; 30 degrees and over, 85 cents. Orcutt, 16 to 18.9 degrees, 52 cents; 19-19.9, 54 cents; 20-20.9, 57 cents; 21-21.9, 61 cents; 22-22.9, 65 cents; 23-23.9, 69 cents; 24-24.9, 72 cents; 25-25.9, 76 cents; 26 degrees and over, 80 cents. Lost Hills and Belridge schedule same as that of the Standard Oil Co. of California in Lost Hills; Mount Poso, Kern River, McKittrick schedule same as Standard's Newhall, McKittrick and Kern River schedule except that Union Oil Co. posts 47 cents for 11 to 13.9 degrees, inclusive. Union Oil Co.'s schedule also posts 47 cents per barrel for 11 to 13.9 gravity in Coalinga, Midway-Sunset, Elk Hills and Buena Vista Hills. Shell Oil Co. and Associated Oil Co. met the Standard Oil Co. of California prices.

Elwood—F.o.b. ship, 33-33.9 degrees, 91 cents; 34-34.9, 94 cents; 35-35.9, 97 cents; 36-36.9, $1; 37 degrees and over, $1.03.

Kettleman Hills—33-33.9 degrees, 76 cents; 34-34.9, 78 cents; 35-35.9, 80 cents; 36-36.9, 82 cents; 37-37.9, 84 cents; 38-38.9, 86 cents; 39 degrees and over, 88 cents.

Newhall, McKittrick and Kern River—14 degrees to 19 degrees and over, 52 cents.

Wheeler Ridge—14 to 20.9 degrees, 52 cents; 21-21.9, 55 cents; 22-22.9, 57 cents; 23-23.9, 60 cents; 24-24.9, 63 cents; 25 degrees and over, 66 cents.

Late Fields

OKLAHOMA

The most interesting wildcat wells in the State at this time are the two Logan County tests. Shell Petroleum Corp. and others' No. 1 Faulkner, C SE NW, Section 11-15-4w, on the Navina high, found a showing of water and oil in the Simpson dolomite at a total depth of 6,566 feet. The formations have been cored from 6,535 feet to its present depth. The showing of water near the top of the Wilcox sand is believed to have placed a damper on the enthusiasm of those interested in the area.

The other wildcat test in Logan County, Gypsy Oil Co. and others' No. 1 Miller, C NE SE, Section 28-17-4w, was coring at a total depth of 6,108 feet in Simpson dolomite, with the top of the Simpson at 6,017 feet. The Viola lime was reported at 5,965 feet. These two wildcat tests are considered to be running high on structure.

The five producing wells in the Wentz Pool, in Noble County, have a combined potential of 19,708 bbls. a day after a 12-hour gauge that showed a combined production of 9,854 bbls. Two of the wells flowed wide open and the other three were produced through choke, when tested by the state deputy umpires June 24. The results of the 12-hour flow by wells was as follows:

Company and well—	Bbls.
Lucien Consol. Com. No. 1 Jerome	544
Lucien Consol. Com. No. 1 Whitten	5,480
Lucien Consol. Com. No. 1 Wolf	904
Lucien Consol. Com. No. 1 Farr	2,489
Stanolind No. 1 Kolb	437
Total	9,854

The proration office was working on the gas-oil ratio of these wells and it appeared that it would be around 2,000 feet per barrel of oil. None of the wells showed water on the potential test. The results will be presented to the Corporation Commission at the June 27 hearing, when it is expected the Shell Petroleum Corp. will renew its petition for an allowable of 12,000 bbls. a day from these wells. The Shell has completed its 26-mile 6-inch pipe line into the field.

KANSAS

Increases in nominations by crude oil purchasing companies was announced in the Ritz-Canton, Voshell and Hollow Fields on June 25. The Phillips Petroleum Co. increased its nominations from 6,000 to 9,000 bbls. daily in the Ritz-Canton Pool. The Skelly Oil Co., Globe Oil & Refining Co., and White Eagle Oil Co. announced that they would purchase 100 per cent of the production from the wells to which their lines are connected if the commission will grant the increase.

In the Voshell Pool, in McPherson County, the Sinclair Prairie Oil Co. increased its nominations from 2,000 to 6,000 bbls. a day, effective June 25. The Skelly Oil Co. and the White Eagle Oil Co. announce they would purchase 100 per cent of the crude produced from wells to which they are connected, if the commission grants the increase.

The allowable of the Hollow Pool, in Harvey County, was increased, effective June 25, from 300 to 500 bbls. per well.

E. B. Shawver Oil Co. has purchased from the Carter Oil Co. the Stone lease of 76 acres in Section 2-25-5, Butler County, about 6 miles north of Eldorado. The transaction included all the building and equipment on the property, which consists of four producing wells with a daily production around 105 bbls. The purchase price was not announced. The Stone lease is considered to have been one of the most prolific oil leases in the county, size considered, and it is estimated that during the last 15 years the Carter Oil Co. has netted a profit of around $2,500,000 from this property.

The Shell Petroleum Corp. and others' No. 1, SE cor. SW NW Section 7-25-3, Butler County wildcat, was spudding on the last report.

On the east side of the Ritz-Canton-Decker Field in McPherson County, O. K. Detrick, Stearns & Streater and Shell Petroleum Corp.'s No. 1 Whittal, NE cor. Section 29-19-1w, made 80 bbls. of oil in two hours from the chat formation at 2,922-82 feet. It is estimated by the owners to be a 1,000-bbl. well. It is the first large chat formation producer on the east side of the field, and apparently opens a new producing area.

Hartman & Skaer and Braden & McClure's No. 1 West, NE cor. SE SE Section 34-19-3w, an extension well in the Johnson Pool, in McPherson County, found the top of the chat at 2,947 feet. If this test makes a commercial well it will widen the producing area of the pool two locations to the west. The chances are considered favorable for production, as the top of the chat was found higher than any other well in the field. The casing is being landed and cemented before drilling deeper.

SOUTHWEST TEXAS

SAN ANTONIO, Tex., June 27.—Sun Oil Co.'s No. 1 Guerra, northern Starr County wildcat, deepened to 2,232 feet in addition to gas made 12 to 15 bbls. of 37 gravity oil per hour. Magnolia Petroleum Co.'s No. 1 in Survey 363, Duval County, Monday swabbed 65 bbls. in 18 hours and is going on pump. C. W. Bolers' No. 1 Kearney, in Bexar County, in Austin chalk, after being given acid treatment, made one head of oil and is being cleaned out.

LOUISIANA

SHREVEPORT, La., June 27.—Sabine Production Co.'s No. 1 Whitney, cor. SW cor. SW SW Section 4-9-13, Converse district, Sabine Parish, a mile and a quarter northwest of the nearest production, bailed in with estimated 15,000,000 feet of wet gas, total depth 3,082 feet. D. S. Golden's No. 1 Cranford, SE cor. NW SE Section 20-9-13, total depth 1,852 feet, started flowing by heads. Location is a quarter mile west by north of Evans Brothers' No. 1 Cranford, 150-bbl. initial producer completed two months ago in Section 20-9-13 at 1,854 feet.

DEATH OF H. M. ANDREEN

Harry Mayo Andreen of Tulsa, of the geological department of the Carter Oil Co., died in Woodside, Calif., Friday, June 23. He had been in California in search of health, having left Tulsa nearly a year ago on leave of absence.

Mr. Andreen was born in Redwood City, Calif., 42 years ago. He was a graduate of Leland Stanford University. Before leaving for the Pacific Coast he had been in charge of the Carter Oil Co.'s torsion balance work.

Mr. Andreen was a member of the American Association of Petroleum Geologists and of the Tulsa Geological Society. Mrs. Andreen and two children survive.

The funeral was held in Redwood City Monday under Masonic auspices.

Going Is Plenty Rough Along Iraq Pipe Line

Some of the difficulties which are being encountered in the laying by the Iraq Petroleum Co., Ltd., of its oil line from Kirkuk oil field of Iraq across the Syrian desert to the Mediterranean Sea. The surface of much of the country through which the route goes is hard lava rock, which must be blasted out. The picture was taken on the route of the south line, showing tractors and winches at work moving rock and laying pipe.

Oklahoma Motor Fuel Market Leveling Out

(Continued from Page 21)

the seller guarantees high octane ratings as well as high gravity and low end-points. Naphtha prices are unchanged with the demand not so active.

Natural Gasolines

The 26-70 grade of natural gasoline advanced to a 3-cent level last week and was pegged at that point the first of this week. Trading has slowed up. Most manufacturers are sold up for June delivery and it was hoped that July buying would get under way before the end of the week.

The lower vapor pressure grades are bringing little premium over the 26-70 grade. On a basis of manufacturing costs in relation to the 26-70 grade, 11-pound material should bring a price around 5 cents per gallon and the 18-pound grade 3¾ cents. These prices are not obtainable in competition with refinery gasolines so more manufacturers are shifting to the 26-70 grade. The top sales reported in the low vapor pressure grades ranged from 3½ to 4 cents per gallon.

Other Products

Most grades of distillates advanced an additional one-eighth cent last week when refiners continued to restrict their offerings. Prices ranged from 1⅞ to 2¼ cents the latter being the asking price for the prime white grades. Material became more freely available the first of this week. The strongest of the furnace oil grades is the 32-36 zero low flash material which is practically unobtainable in the Oklahoma market at a low of 2 cents.

Kerosenes are steady with a fair demand. Low cold test industrial fuel oils have advanced in Oklahoma to a low of 35 cents per barrel. Industrial gas oils range from 1⅛ to 1¼ cents.

Bright stocks were advanced an additional 1 cent in Oklahoma making a price of 18¾ cents exclusive of taxes for the 150-160 zero grade. Wax continues strong with prices on all crude scale material ranging up from 2 cents.

DRILLING ON BARCO CONCESSION

NEW YORK, June 26.—Colombian Oil Co., which is developing the Barco Concession, controlled 75 per cent by Gulf and 25 per cent by Carib Syndicate, is spudding in a second well on the concession, it is reported here, and will push development work on the project. The first well, which has been shut in since the fire was extinguished, is unofficially reported to have flowed between 3,000 and 4,000 bbls. of 43 gravity oil.

Pennsylvania Grade Oil May Be Produced 100 Per Cent in July

BRADFORD, Pa., June 26.—South Penn Oil Co., and Tide Water Pipe Co. have notified Bradford district producers that their ratable call as refers to crude contracts for the month of July will be at the rate of 100 per cent. The Tide Water company has issued similar notice to Allegany district producers. The call for June is 85 per cent, while 75 per cent prevailed from September to May, inclusive. During the first eight months of 1932 calls ranging from 80 to 95 per cent were made, and the July call is the highest that has prevailed since December, 1931, when 105 per cent was requested.

Sinclair Refining Co. has notified producers in the Allegany district that it will accept all crude offered during July following the elimination of proration through notice recently issued by the Allegany Conservation Board. The action of the other buyers in the Bradford district has not been announced, but it is believed that virtually all of them will have sufficient demand for crude to permit their producers to operate on a 100 per cent basis.

In the other areas of the Pennsylvania grade territory the buyers generally have increased their demand for crude and the South Penn Oil Co. has notified its patrons that there will be no need for any curtailment of production next month since the company's requirement will permit purchase of oil on 100 per cent basis as refers to production for the month of November, 1931.

European Oil Conference Awaits Stabilization Here

PARIS, June 26.—The international oil conference, scheduled to convene this month, has been delayed to await developments in America regarding control of production. An oil authority said it was felt that it would be useless to hold a meeting until it has been determined what measure of control would be worked out.

It was understood the Rumanians, who agreed to restrict output on condition that production of American independents would be reduced, have denounced the agreement "in principle" but are provisionally abiding by it.

GEOLOGY OF CALIFORNIA

Ralph D. Reed, chief geologist, Texas Co. (California), has recently published through the American Association of Petroleum Geologists the "Geology of California," covering the stratigraphy, structure and geologic history of that State with particular reference to post-Triassic events in the coastal province, and discussing some of the major unsolved problems of California geology.

It is a 355-page book, with pictures, maps and typical sections, also numerous references to the geologic literature. It is not primarily a petroleum geology but will prove of much interest to this industry.

Copies are available from the American Association of Petroleum Geologists, Tulsa, or Thomas Murby & Co., 1 Fleet Lane, E.C. 4, London, England.

REFINERIES RESUME OPERATION

The Oriental Refining Co. (Atlantic, Pacific & Gulf Refining Co.), of Wichita Falls, Tex., has resumed operations after a six-months' shutdown. It has a capacity of 2,500 bbls. daily.

Taxman Refining Co.'s 3,000-bbl. skimming plant at Wichita Falls, has also resumed operations after a three-months' shutdown.

WETASKIWIN GAS WELL

CHATHAM, Ontario, June 24.—Drilling equipment has been installed to clean out the municipally owned gas well at Wetaskiwin, Alberta.

Gen. Hugh S. Johnson Bans Selling Below Cost

(Continued from Page 9)

ing at the Department of Commerce. The meeting was called to order by Secretary of Commerce Roper, who was appointed by the President as chairman of the board. Those present were: Attorney General Homer S. Cummings; Secretary of the Interior Harold Ickes; Brigadier General Hugh Johnson, administrator of the Industrial Recovery Act; General Charles H. March, chairman of the Federal Trade Commission; Rex G. Tugwell, representing the Secretary of Agriculture; Assistant Attorney General Harold M. Stephens, and Turner W. Battle, representing the Secretary of Labor. Assistant Secretary of Commerce Dickinson was named executive secretary of the board.

Three divisional boards are being named to assist the National Industrial Recovery Board: An industrial advisory board named by Secretary Roper; a labor advisory board named by Secretary Perkins, and a consumers advisory board.

The small group of leaders in the industrial, financial and business fields named by Secretary of Commerce Roper as an industrial advisory committee has been enlarged to 49 members nominated by the original group.

President Walter C. Teagle, of the Standard Oil Co. (New Jersey), was in the initial list and M. L. Benedum, oil operator of Pittsburgh, Pa., has been added. Others on the committee are Gerald Swope of General Electric Co.; Henry I. Harriman, U. S. Chamber of Commerce; Walter S. Gifford, American Telephone & Telegraph Co.; Melvin Traylor; Alexander Legge, International Harvester Co.; A. P. Sloan, General Motors Corp.; Pierre du Pont; and James H. Rand, Remington-Rand Co.

Gerard Swope, president of the General Electric Co., was elected chairman of this committee, which will meet monthly. An executive committee will hold interim sessions with government officials.

The meetings of the committee are being held at Washington this week. It is anticipated that the committee will initiate discussions of the relationship it is to bear toward the industrial recovery administration, which may call upon it from time to time for assistance in dealing with the problems of various industries.

The broad purposes of the committee, it was explained by Secretary Roper, are twofold, first, "as a group of practical and experienced men to assist in directing the work of the department along the most effective and productive lines at a minimum expense to the taxpayer and, second, to assist in the selection and development of fundamental long-range studies considered essential in giving business the desired sense of direction in the form of appropriate facts, figures and other data, for the collection and interpretation of which the research and statistical resources of the department afford."

Into the latter class, Mr. Roper continued, might fall such problems as the decentralization of industry, adjustments in international trade between countries having nationally planned economies and the relation between the increase in funded debt and the growth of the capital equipment of the country.

OIL ORDER SUSPENDED

WASHINGTON, D. C., June 26.—The Interior Department has agreed to suspend an order requiring Texas Co., Ohio Oil Co., Stanolind Oil & Gas Co., and Continental Oil Co. to start production in the Maverick Springs oil fields in Wyoming by September 1, 1933. The department accepted the offer of the oil companies to pay an additional $1 per year an acre on their leases to the Indian service. The companies are relieved from drilling wells on their leases until required to do so by the Secretary of the Interior or as soon as adequate transportation facilities are completed.

John B. Tonkin Heads Peoples Natural and French Robinson Vice President

OIL CITY, Pa., June 26.—Two well-known eastern gas men, one a former resident of Oil City, have been promoted to higher positions with the Peoples Natural Gas Co. of Pittsburgh. John B. Tonkin has been elected president of the

JOHN B. TONKIN

company and of its affiliate, the Columbia Natural Gas Co. Since 1918 he has served as vice president and general manager.

The former Oil City man succeeds Christy Payne, of New York, who retires from the presidency of the Peoples company following his election as vice president and treasurer of the Standard Oil Co. (New Jersey).

To succeed Mr. Tonkin as vice president of the Peoples the board of directors elected J. French Robinson who has been with the company since 1920 as geologist and engineer. Since 1930 he has been located at Wellsboro where he has been manager of the Lycoming Producing Corp. in the northern gas fields.

John B. Tonkin was born at Tidioute, Pa. His family moved to Oil City in 1894 from Toledo and that year the young man left the United States naval academy and joined his parents here. He was in the employ of the National Transit Co. for a time and in 1898 when the Hope Natural Gas Co. and the East Ohio Gas Co. were formed, Mr. Tonkin was selected as general bookkeeper in the offices at Oil City.

In February, 1902, he was selected treasurer of the Hope Natural Gas Co. and transferred to Pittsburgh. He continued in that position until June, 1918, when he became vice president and general manager of the Peoples Natural Gas Co. He served 39 years with the various affiliated gas companies of the Standard group. He is a past president and director of the Pennsylvania Natural Gas Men's Association. In addition he is interested in a number of civic and welfare organizations.

Born in West Virginia in 1890, Dr. J. French Robinson, geologist and engineer, was educated in the public schools and in 1915 received his degree from the University of West Virginia as a bachelor of science in civil engineering. In 1918, he was awarded the degree of master of science and in 1929 the University of Pittsburgh made him a doctor of science.

From 1914 to 1918 Doctor Robinson was assistant geologist for the Baltimore & Ohio Railroad, making investigations in oil, coal and mineral resources in ground contiguous to that system. From 1918 to 1919 he spent a year as engineer and superintendent of the Ford Run Coal & Coke Corp. The next year was spent in the Southwest as geologist of the Seneca Hill Oil Co.

In 1920 and 1921, Doctor Robinson was assistant state geologist of Pennsylvania. In the latter year he became affiliated with the Standard Oil interests and as geologist and engineer he covered the Pennsylvania, West Virginia, Ohio and Kentucky fields. With the advent of the new field in Tioga County, Pennsylvania, in September, 1930, Doctor Robinson be-

J. FRENCH ROBINSON

came manager of the Lycoming Producing Corp., the New York State Natural Gas Corp., and the Keuka Construction Corp.

Doctor Robinson is a member of the American Institute of Mining and Metallurgical Engineers, American Institute of Petroleum Geologists, American Petroleum Institute, American Mining Congress, Engineers Society of Western Pennsylvania, and American Gas Association.

Appliances Require Fuels of Uniform Volatility

(Continued from Page 16)

10 mgs. of copper dish gum loses 24 points, and so on. Gasolines consistently receiving a grade of 75 or better are considered acceptable and are placed on an approval list which recommends them for appliance use.

Following the copper dish tests are tests for stability (Voorhees & Eisinger), corrosion, doctor and acidity tests and the Engler distillation test. Objectionable characteristics found in the sample by any of these tests result in corresponding penalties which are then totaled and subtracted from the possible grade of 100 to give the final grade for the sample.

Final grades of 75 to 85 indicate acceptable appliance fuels. Grades of 90 to 95 indicate good clean fuels which can be recommended dependable appliance fuels for continuous service. Grades of 98 to 100 indicate exceptionally clean, highly refined, stable fuels which are especially desirable for appliance use because they can be used for long periods of time without interruption of service or interference with the perfect operation of the appliance.

Approval Program

Those fuels which consistently grade above 75 by the above grading plan are placed and kept on United Laboratories "List of Gasolines Approved for Gasoline Pressure Appliance Use."

Gasolines are approved in each state separately. General approval lists, for all states, are published every 90 days, subject to revision every 30 days. These lists are supplied to the appliance manufacturers who sponsor United Laboratories, to their branches and larger jobbers, and to oil companies who request them.

Smaller state approval lists are printed every 90 days subject to revision every 30 days. These lists are supplied to sponsoring companies who enclose them with general and special mailings to dealers and customers. They are also supplied, no charge, to oil companies whose brands are shown thereon.

These approval lists are being widely distributed and the appliance user finds them very useful because they help him to select the better fuels for appliance use in his community. Fifty thousand of these small state approval lists were printed for distribution during the current month of April. On the reverse sides of these small state approval lists are a number of suggestions for the proper storing and handling of gasoline intended for appliance use.

No doubt there are good appliance fuels in addition to those now listed. These brands will be listed as rapidly as they are tested and found satisfactory.

Taxability of Pipe Line Oil Being Transported

By CHARLES E. KERN
Washington Bureau, The Oil and Gas Journal

WASHINGTON, D. C., June 24.—Taxability of oil in course of transportation at midnight on June 20, 1932, is the subject of a discussion by the Bureau of International Revenue.

"Advice is requested whether oil which was in the originating pipe line system at midnight June 20, 1932, and later moved through other connecting pipe lines is subject to the tax imposed by Section 731(a) of the Revenue Act of 1932," the bureau states, and continues:

"It is stated that three pipe line systems owned by separate corporations are connected for the transportation of oil in interstate commerce; that the oil in question was tendered to a pipe line company prior to June 20, 1932, with instructions for delivery at the terminus of the third pipe line company; that the transportation was continuous; and that the ownership of the oil did not change during the transportation.

"The mere tender of oil to carriers for transportation can not be considered as originating the actual transportation by pipe line, within the meaning of the law. Transportation originates when the oil starts moving through the pipe lines of the originating carrier for a continuous movement to its consigned destination. Where transportation of oil actually originated prior to midnight of June 20, 1932, no tax attached to any continuous movement thereof, regardless of the number of carriers handling such oil in order to deliver it to its consigned destination, provided there was no break in the continuity of the movement.

"A break occurs or the oil comes to rest when, as it moves from its point of origin to a consigned destination, it reaches a place where, at the instance of the shipper or consignee, or their agent, it is stopped for a business purpose, such as a sale, storage, refining or other manufacture, reconsignment, or reshipment, having no connection with the process of transportation. Instances of a break in the continuity of a movement are (1) oil sent to a consignee at a certain place where the consignee, upon receipt of the oil, refines, mixes, or accumulates it for the purpose of selling it or (2) oil consigned to a definite destination and, prior to its reaching that place, it is reconsigned to another destination. In this event a break occurs at the point where the reconsignment takes place. In each case the oil is stopped for a business purpose. The movement is not, therefore, a continuous one from the point of origin to the ultimate destination.

"As previously indicated, the movement of the oil from the point of origin to its final destination must be continuous. If a break occurs at any point in transit, the first movement of the oil is completed and the transportation thereof is not taxable, provided the oil actually started moving through the pipe line prior to midnight of June 20, 1932."

Globe Oil & Refining Co. Introduces New Features

(Continued from Page 14)

a vacuum for the manufacture of asphalt and road oil. From this unit gas oil is being taken off overhead and the bottoms are recovered as a 6 to 8 gravity road oil.

Lachman Process

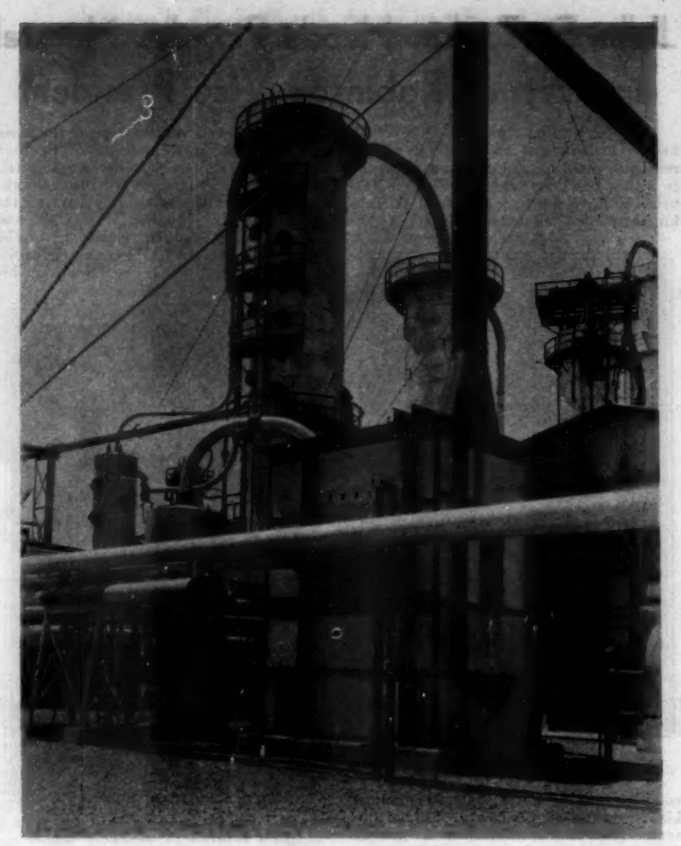
The vapors leaving the bubble tower of the cracking furnaces are divided into two streams. One of these is condensed and is returned to the top of the bubble tower as reflux, while the main volume goes into the Lachman treating system.

Through the installation of the Lachman vapor phase treating process the Globe Oil & Refining Co. introduces to the Mid-Continent a new and effective means of removing gum and gum forming constituents from the cracked gasoline.

This process utilizes zinc chloride as the reactive media and calls for substantial changes in design and operation from the conventional sulphuric acid treatment. It is particularly adaptable to the treatment of cracked vapors resulting from a reforming operation and may be most easily tied in with a combination unit of the type discussed here.

As was stated previously the treating unit is charged directly with the cracked vapors coming from the bubble tower. The vapors leave the bubble tower under sufficient pressure to be processed through the treater without subsequent pumping. These vapors enter the 8'x58' contact tower and bubble up through the hot zinc chloride solution. The gum forming constituents immediately react with the zinc chloride to form a sludge. This reaction is controlled by the injection of steam and in this manner a temperature of 370° F. is maintained. The equipment treats all of the 3,700 bbls. of cracked gasoline produced daily with no intermediate storage or handling.

The zinc chloride solution is not corrosive under ordinary conditions but due to violent ebullition in the contact tower and its reaction with compounds in the oil vapors, it was necessary to line the contact tower with one-eighth inch copper sheeting and the bubble caps and decks are cast from brass.



In the foreground is the steam superheater and in the background the towers and one of the furnaces comprising the combination unit

The steam heated zinc chloride solution is pumped into the tower at a rate equivalent to about 1 gallon of fresh solution to each 2 bbls. of cracked gasoline leaving the system. The sludge is withdrawn from the bottom of the tower and this goes to a series of settling tanks.

The treated vapors leave the contact tower and then enter a lime rock tower where all but a trace of acid is removed. It should be explained that during the treating, a slight hydrolysis takes place. Some zinc oxychloride is formed and a small amount of hydrochloric acid is liberated. In the vapor state, this acid is not corrosive and 80 per cent of it that is formed in the contact tower is removed in the lime rock water. The balance of this acid is neutralized with ammonia later in the process.

The lime rock tower is a simple steel shell, lined with cement several feet up from its base because the resulting calcium chloride is somewhat corrosive. The shell is packed with chunks of limestone. Additional lime rock is added to the tower once every 60 to 90 days. The rock tower is maintained at about 365° F., by the use of steam, and control of pressure.

From the rock tower the vapors go to a final bubble tower where any adjustment of endpoint is made on the cracked gasoline. Ammonia is injected into the final vapor line to neutralize any hydrochloric acid that might have passed through.

The small volume of heavy fractions and polymers that condense out are pumped to distillate storage or charged back through one of the cracking coils.

The final fractionating tower is controlled by an open reflux of a condensed portion of its own stream, the treated cracked gasoline vapor off the top, being condensed and cooled and run to a gas separator. This separator is held under a pressure of about 22 pounds and the resulting gasoline contains a relatively high percentage of light fractions. These fractions are removed as the gasoline is processed through the pressure gasoline debutanizer.

Laboratory tests on a sample of the unstabilized cracked gasoline as it leaves the combination unit follow:

CRACKED GASOLINE AS LEAVES COMBINATION UNIT

Distillation	
Initial, °F.	90
10%, °F.	165
20%, °F.	200
50%, °F.	282
90%, °F.	386
End point	400
Color	30+
Gravity	58.1
Gum content (mgs. copper dish)	6 to 8
Octane No.	70

Zinc Chloride Sludge

The zince chloride sludge that is pulled off the bottom of the contact tower is run first to a series of settling tanks. These are ordinary steel tanks of 500-bbl. capacity and these are five in number.

This sludge consists chiefly of uncon-

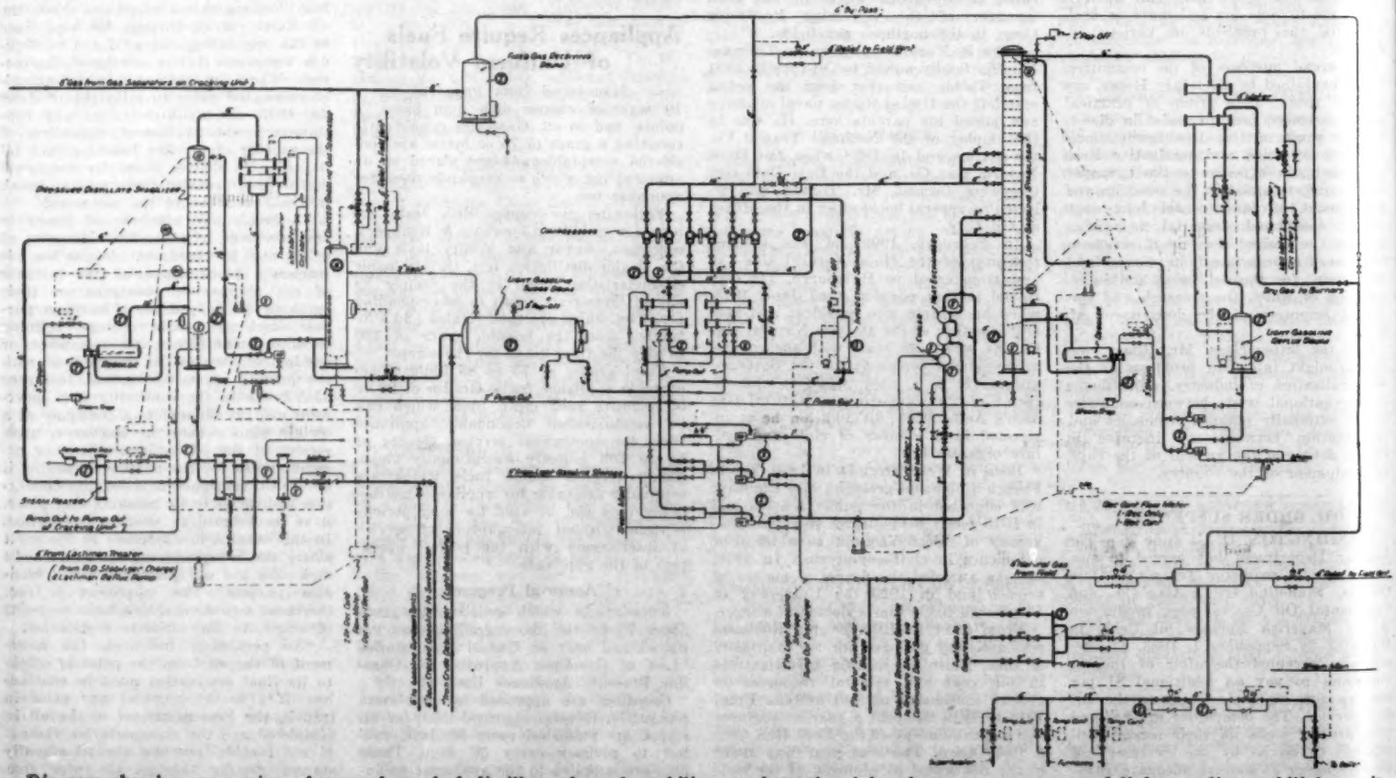


Diagram showing processing of treated cracked distillate through stabilizer, and, to the right, the vapor recovery and light gasoline stabilizing unit

Distillation, Cracking and Vapor Phase Treating
EQUIPMENT
From a Bubble Cap to a Complete Refinery

There is some WINKLER-KOCH equipment in all these Midcontinent, North and West Texas, Arkansas and Louisiana Refineries

Altitude Petroleum Company, Chanute, Kansas
Anderson-Prichard Oil Corporation, Cyril, Oklahoma
Champlin Refining Co., Enid, Oklahoma
Col-Tex Refining Co., Colorado, Texas
Cosden Oil Company, Big Spring, Texas
Henry H. Cross Company, Smackover, Arkansas
Deep Rock Oil Corporation, Cushing, Oklahoma
Derby Oil Company, Wichita, Kansas
El Dorado Refining Co., El Dorado, Kansas
Empire Oil & Refining Co., Gainesville, Texas
Empire Oil & Refining Co., Ponca City, Oklahoma
Empire Oil & Refining Co., Muskogee, Oklahoma
Wirt Franklin Petroleum Co., Ardmore, Oklahoma
Globe Oil & Refining Co., Blackwell, Oklahoma
Globe Oil & Refining Co., McPherson, Kansas
Johnson Oil Refining Co., Cleveland, Oklahoma
Kanotex Refining Company, Arkansas City, Kansas
Kettle Creek Refining Company, El Dorado, Arkansas
Lion Oil & Refining Co., El Dorado, Arkansas
Louisiana Oil Refining Co., Shreveport, La.
Magnolia Petroleum Company, Luling, Texas
Marathon Oil Company Del Rio, Texas
Mid Continent Petroleum Co., Tulsa, Oklahoma
National Refining Co., Coffeyville, Kansas
Olney Refining Company, Olney, Texas
Panhandle Refining Company, Wichita Falls, Texas
Producers & Refiners Corporation, Tulsa, Oklahoma
Ouachita Valley Refining Co., El Dorado, Arkansas
Rock Island Refining Company, Beckett, Oklahoma
Red Ball Refining Company, Pampa, Texas
Root Refining Company, El Dorado, Arkansas
Shreveport Producing & Refining Co., Shreveport, Louisiana
Simms Oil Company, Dallas, Texas
Sinclair Refining Company, Coffeyville, Kansas
Sinclair Refining Company, Sand Springs, Oklahoma
Skelly Oil Company, El Dorado, Kansas
Standard Oil Company (Kansas), Neodesha, Kansas
Star Refining & Producing Company, Fort Worth, Texas
Texas & Pacific Coal & Oil Co., Wynnewood, Oklahoma
Vickers Petroleum Company, Potwin, Kansas
Waggoner Refining Co., Inc., Electra, Texas
Western Oil Corporation, Beckett, Oklahoma
West Texas Refining Company, Pecos, Texas
White Eagle Oil Corporation, Augusta, Kansas
H. F. Wilcox Oil & Gas Company, Bristow, Oklahoma

THE WINKLER-KOCH ENGINEERING CO.
Consulting and Construction Engineers
WICHITA, KANSAS

European Representative
A. F. CRAIG & CO., Ltd.
Paisley, Scotland
London, England

Lachman Process
VAPOR TREATING PROCESSES, Inc.
555 South Flower St.
Los Angeles

sumed concentrated zinc chloride solution along with some very heavy polymers, which are present as an emulsion, and small particles of oxychloride and zinc sulphide.

Upon diluting back down to a 50 per cent concentration in the settling tanks, together with heating and agitation, a separation takes place. The polymers recovered represent about one-half of 1 per cent of the raw charge and are pumped to slop.

The reclaimed zinc chloride solution is transferred to the working supply, leaving a sludge deposit on the bottom of the tank. This sludge, which is essentially zinc oxychloride and zinc sulphide is pumped through a small plate and frame type filter press and the solids are recovered. The cake is being stored for future sale; however, the volume is very small.

The zinc chloride is received into the plant as a 65 per cent solution in tank cars; and after dilution to 50 per cent strength is ready for use. The chemical is shipped from the East Chicago district.

In summarizing the advantages of the Lachman process over ordinary acid treatment, the following points are claimed:

1. Low capital investment in (a) treating equipment (b) storage tanks for semifinished products and (c) semifinished products.
2. Low operating cost including royalty when compared with other conventional methods of treating.
3. No appreciable volumetric treating losses. Only about one-half to 1½ per cent of the raw charge are formed and this is usable as fuel.
4. There is no loss in octane number of the treated cracked gasoline.
5. The finished cracked gasoline is remarkably good with respect to color, color stability, gum content and freeness from gum forming constituents.

Pressure Distillate Stabilizer

From the Lachman treater the sour, treated, cracked gasoline is pumped to the stabilizing unit. In general, this is conventional, using steam as the heating medium and full use is made of the most modern automatic regulating and recording devices throughout. The details of the method of processing may be most easily traced on the smaller flow chart in which the cracked gasoline debutanizer is sketched at the left.

The sour, cracked, stabilized gasoline may be seen leaving the base of the tower. It is cooled and run direct to the

General view of the light oil doctor treaters for sweetening the light recovery gasoline, straightrun and cracked gasolines

continuous sweetener. The light vapors which leave the top of the stabilizer column are condensed and collected in a receiver which also acts as a separator for any remaining gases. From this accumulator tank the liquid goes to a surge tank which also receives the light gasoline recovered in the crude debutanizing unit, and the two are then sent to the light gasoline stabilizer on the vapor recovery system.

It might be well to mention that this is the third place in the plant where a stabilizer is used to fractionate out the overly volatile portion. First the crude passes through a debutanizer, then the cracked distillate is stabilized in a unit briefly described above; and now the light liquid fractions from these operations together with the light gasoline from the vapor recovery system all pass through a final stabilizer.

Vapor Recovery Plant

The vapor recovery plant is somewhat unique in that it essentially includes only a series of compressors and a fractionator. It is devoid of the customary absorption and distillation equipment. This has simplified the operation and has brought down the investment in this part of the plant to a much lower figure and it is not felt that much has been sacrificed in yield considering the volatility of the finished gasoline, as will be seen later.

As the fixed gases and uncondensed vapors are collected from the various parts of the topping and cracking plant, they are fed through the 10-inch line to three twin Clark 210-horsepower compressors. The gas is compressed in the low side of each to about 75 pounds, cooled by water, enters an interstage separator and the uncondensed gases are brought back through the other side and at 300 to 325 pounds are fed into the light gasoline stabilizing tower.

The condensate in the interstage separator is taken off and joins with the condensate from the vapors off the pressure distillate stabilizer tower and crude debutanizer and the mixture enters the light gasoline stabilizer column. Fractionation is carried out under a pressure of from 300 to 325 pounds, the pressure being maintained by the introduction of the highly compressed gases from the compressors, and automatic pressure regulated on the dry gas line from the reflux accumulator of the stabilizer column.

The light gasoline recovered from the final stabilizer is led back through exchangers to give up its heat, cooled with well water and is ready to be doctor treated and stored for blending and shipping. It is sweetened, under pressure, in a continuous doctor sweetener and is stored under pressure.

A typical sample of this recovered gasoline shows the following characteristics:

UNTREATED RECOVERED GASOLINE FROM LIGHT GASOLINE STABILIZER

Vapor pressure (Reid), lbs.	23
Gravity, °A.P.I.	84

When this is blended with the cracked and straightrun as a composite, the motor fuel has the following characteristics:

COMPOSITE OF ALL GASOLINE PRODUCTION

Octane No.	70
Distillation	
Initial, °F.	90
10%, °F.	134
30%, °F.	160
50%, °F.	246
90%, °F.	365
Endpoint, °F.	396
Doctor	sweet
Corrosion	negative
Color	30
Gravity	60.8
Sulphur, %	0.20
Gum, mgs. (copper dish)	6
Vapor pressure, lbs. (Reid)	9

Sweetening System

Three distinct continuous treating systems are used for sweetening the various gasolines. One of these treats the stabilized cracked gasoline, another the

National Steam Pumps Largely Used to Equip Globe's New McPherson Refinery

This photo shows a few of the many National Pumps installed in the new refinery of the Globe Oil & Refining Co., McPherson, Kansas.

—o—

Each complete unit is Designed, Engineered, made and guaranteed under one responsibility.

NATIONAL STEAM PUMP CO.

UPPER SANDUSKY, OHIO

FACING A NEW DAWN!

Globe

For fifteen years the Globe has moved steadily forward, constantly improving its facilities and service to independent Mid-Western jobbers and dealers in petroleum products.

Sustained by an enduring faith in the basic soundness of America and American industry, the Globe has never allowed itself to be swerved from its aggressive policy of continuous development and expansion.

From the Globe's viewpoint, the events of the recent past are merely a prelude to a New Dawn of greater and sounder National well-being.

During recent years the Globe has made extensive investments in new and improved equipment at both its Blackwell, Okla., and Lemont, Ill., refineries.

And now, the opening of our new 10,000 barrel refinery at McPherson, Kansas, containing the most modern equipment in America for the production of high quality gasoline, is the final proof of Globe's confidence and faith in America.

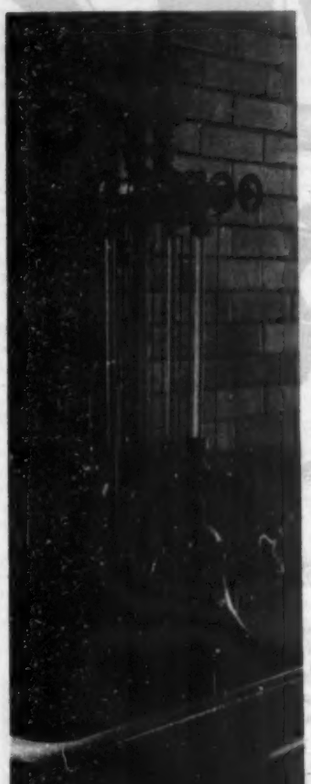
The Globe is prepared for the New Dawn—ready to meet the increasing public demand for higher quality motor fuels. Independent jobbers and dealers can fortify their position in the industry by a tie-up with Globe. They are invited to communicate with our nearest office.

The GLOBE OIL & REFINING CO.

Brown Bldg., Wichita, Kansas Buckingham Bldg., Chicago, Ill.
2424 University Ave., S. E. Minneapolis, Minn.

straightrun and the third one is of much smaller capacity and treats the gasoline off the light gasoline stabilizer.

These three systems are practically identical in design except for size. Each consists of three horizontal drums hooked up in series. The untreated gasoline passes through three 8-inch duriron mixing nozzles, along with the doctor and sulphur solutions, in conventional manner. The mixture then enters the first drum where the doctor solution settles out. Any doctor solution that is carried over into the second settling drum with the gasoline settles out there. Between



Sampling lines from the various points in the Lachman process

the second and final settling drums the gasoline is given a water wash and leaves the system bright and sweet.

Two batch agitators of 900 bbls. capacity each treat all of the kerosene and furnace oil.

Power Plant

The power plant is a standard Truscon steel frame and sheet iron building. It houses two 500-horsepower Heinie boilers equipped with Foster Wheeler superheaters and a Graver lime-soda ash hot process water treater. These boilers operate at 240 pounds pressure and are capable of producing 100° super heat at 300 per cent of capacity. They supply all steam used throughout the plant for pumping and processing. That which is superheated in the separate heater which feeds the Lachman treater and strippers on the crude flash tower, is exhaust steam from the pumps.

National Steam Pump Co. reciprocating units have been used at practically all points throughout the plant for transferring the oil. The plant does not generate its own electricity and buys that used for pumping the water well, lights, instruments, air compressor and circulating fans. When in balanced operation more dry fixed gas is produced than is consumed as fuel in all the plant, under boilers, exhaust steam superheater, cracking furnaces and compressors.

Water System

One well capable of supplying 1,000 gallons per minute provides water for the refinery. The water cooling system is equipped with three Terry steam turbines driving Worthington centrifugal pumps. A Pritchard water tower 180 feet long and having a capacity of 6,000 gallons per minute handles all condenser water. All condenser and cooling water returns from the plant to the pond through underground ducts, and is pumped over the cooling tower.

Loading Racks

Because of the northerly location of the Globe Oil & Refining Co.'s plant with respect to the Mid-Continent refining area, a large percentage of its products is taken out by tank trucks, moving into western Kansas, Nebraska and Colorado. A unique rack has been built to load a number of trucks simultaneously and with unusual dispatch. The rack is equipped to load four trucks at once, the products being supplied from nine elevated vertical tanks 11 feet 6 inches in diameter and 39 feet high. Each loading line is equipped with a Granberg meter and a very sensitive long range thermometer set in an immersed brass case. All deliveries are metered and temperature corrections are applied as the basis of sale. The system has proved both accurate and convenient. Approximately 3,000 bbls. of finished products are being shipped by trucks daily.

Three of the loading lines are equipped with meters capable of handling 150 gallons per minute and the other with a meter of 240 gallons per minute capacity. An auxiliary 1-inch loading line has been provided and is equipped pith a meter handling 25 gallons per minute.

Two grades of gasoline, kerosene and furnace oil may be loaded. Air, steam and water are also provided at the rack.

Storage Tanks

In addition to the two 55,000-bbl. crude oil storage tanks previously mentioned there is one 55,000-bbl. fuel oil tank, two 25,000-bbl., eight 10,000-bbl. and twelve 2,500-bbl. tanks. All tanks have steel roofs and those holding volatile products are hooked up with a vapor conservation system to operate under a slight pressure. All tanks were supplied by the Graver Tank & Manufacturing Co.

Office and Laboratory

An attractive and yet inexpensive brick building supplies space for the plant offices and a well equipped laboratory.

Another interesting detail in the construction of the plant is the generous use of flood lights. All wires are buried in conduit and there are no ordinary light bulbs used to light any part of the exterior. By this means, greater safety is provided for the operators and a fire hazard is removed.

Built by Winkler-Koch

All of the equipment in the plant was purchased by Globe Oil & Refining Co. engineers in co-operation with the Winkler-Koch Engineering Co. The Winkler-Koch Engineering Co. held the general contract for all design and construction work in which the equipment and supplies of 161 manufacturers and distributors were used.

Name Representatives to Emergency Committee

(Continued from Page 30)

Oil Wholesalers Association of Chicago; L. Rosenfield, Massachusetts Retail Association; L. S. Scott, E. D. Shaw, Merchants and Manufacturers Association of Washington, D. C., fuel oil division; B. D. Friedman, Merchants and Manufacturers Association of Washington, D. C., service station division; Frank H. Brazil, Michigan Independent Gasoline Dealers Association; H. H. Ragle, J. J. Theisen, R. S. Campbell, Michigan Oil Men's Association.

W. H. Smith, Harry E. Miller, George S. Aleo, Missouri Oil Men's Association; E. Seager, B. W. Ruark, Motor Equipment Wholesalers Association of Chicago; Col. E. H. Hilpp, S. W. Rusk, R. J. Brown, W. R. McCain, National Independent Oil Association; S. Messer, J. V. Frampton, H. A. Logan, C. G. Suhr, J. B. Beman, E. C. Breene, National Petroleum Association, Pennsylvania Refining Division; D. E. Buchanan, A. T. Scherer, Ray E. Miller, Natural Gasoline Association of America; C. M. Sutherland, Ray Ogier, Nebraska Petroleum Marketers Association; C. R. Burnett, Arthur Phillips, New Jersey Oil Trades Association; E. E. Hadlick, J. P. Deegan, M. W. Laughlin, R. J. Coughlin, W. R. Haggart, A. E. Munro, Northwest Petroleum Association; E. V. Weber, Roy B. Weed, H. B. Fuller, R. A. Warfel, Ohio Petroleum Marketers Association; W. D. Campbell, J. R. Atchison, A. H. Horton, T. A. Anson, Oklahoma Petroleum Marketers Association; J. B. Beman, Palm Beach Florida Dealers Association; Harry Logan, Pennsylvania Grade Crude Oil Association; L. D. Pierce, Rhode Island Marketers Association.

F. H. Buehler, South Dakota Independent Oil Men's Association; W. D. Hudson, L. W. Collins, Wiley Moore, Grover Keaton, Tennessee Oil Men's Association; R. B. Jones, Chester Slimp, W. H. Harrison, Texas Petroleum Marketers Association; Tom Glasgow, John Northy, Virginia-Carolinas Association; Paul G. Blazer, W. R. Reitz, Edwin Spears, West Virginia Marketers Association; H. A. Fowler, E. B. Reeser, P. M. Miskell, R. W. McDowell, H. A. Trower, Western Petroleum Refiners Association; Tom Collins, A. G. Talbot, J. F. Baldwin, R. M. McNeily, Fred Falley, Wholesale Petroleum Marketers Association of Chicago; H. A. Rohde, E. H. Pedley, J. H. Crowley, R. E. Brecke, Wisconsin Petroleum Association; R. G. Brodhead, Robert Kloos, Arnold W. Craft, Northeastern Pennsylvania Gasoline Retail Dealers Association.

California Association Elects New Officers

(Continued from Page 28)

the employ of the Standard Oil Co. of California. There he received a practical course of training in practically all departments of the company's refinery at El Segundo.

After serving in the World War he returned to the plant but two years later entered the natural gasoline division of the Pan American Petroleum Corp. as an operator in its Taft plant. Expansion of that company's operations placed him in construction work during which time he supervised the building of the company's plant at Elk Hills and started the work on the Torrance and Long Beach plants.

In March, 1924, he was named manager of the gas department and later the office was expanded to include refinery operations. Mr. Eggleston is also a charter member of the association and has served as vice president once before. He has also been a member of the executive committee and board of directors.

Frank P. Graham Passes Away at McAllen, Texas

Frank P. Graham, aged 64, retired former field superintendent for the Carter Oil Co., who died recently at McAllen, Tex., was one of the best known production men in the Mid-Continent area. Mr. Graham had been connected with the Carter Oil Co. for nearly 30 years and retired two years ago. He went to McAllen and passed away there after an illness of 10 days. The body was taken to Coffeyville, Kans., the former home, where services were held and interment made in Fairview Cemetery.

J. T. Graham, of Colony, Kans., a brother of the deceased, went to McAllen when notified of his brother Frank's illness but arrived at the border town after his brother had passed away. Other survivors are Will Graham of San Francisco, brother, and two sisters, Mrs. Linnie Morris and Mrs. Jane Munson, both of San Francisco.

Texas Independent Refiners Organize

(Continued from Page 30)

ing Co., Houston; C. A. Middleton, Kent Refining Co., Corsicana.

The board was delegated to draw up a code to be submitted to President Roosevelt, and met the following day to begin this work which will soon be completed. Refiners were requested to submit any suggestions they might have to the board. A resolution regarding Federal control of production was read to the board by W. C. Houk of Fort Worth, rather than have the association take separate action.

As soon as the code is drawn up, which will be the fore part of the week, another meeting is to be called for Dallas, at which time the refiners will vote on the code before sending it to Washington. Delegates will also be chosen at that meeting to present the code to the President.

The committee was expected to be aided in framing its code by the action of the refiners' and marketers' conference now assembled in Chicago. However, the Texas code may differ in some important details from the other.

A talk was made at the Friday meeting, by ex-Congressman W. B. Howard of Oklahoma, regarding the Washington oil states' conference and the producing code just drawn up at Chicago. The association declined to take sides in what might involve a controversy.

This association furnishes the independent nonintegrated refining industry of Texas a trade body through which it can treat with the President in his recovery program, as outlined by Mr. Burford as being the purpose of the meeting and organizing of such a group.

He announced that "there are at present in the State of Texas approximately 150 independent refining companies with a rated capacity of 325,000 bbls. daily, representing a capital investment estimated at $25,000,000 and employing more than 10,000 men, and it is vitally necessary that some association be formed which will insure fair and adequate official representation on such advisory committees as may be appointed for the petroleum industry.

"Due to the unique position that the State of Texas occupies with its stringent antitrust laws, it is imperative that an association be organized which will in no way conflict with the prevailing states' statutes, but which would insure that Texas would have a voice in drafting the code and regulations under which the oil industry will function during the existing emergency. Another factor which caused those responsible for issuing this call to reach their decision was the belief that in the ensuing months many problems will arise which will be peculiar only to the independent refining industry and the State of Texas.

"Texas at the present time is producing roughly 60 per cent of our daily production of roundly 2,700,000 bbls. While it is too early as yet to forecast what the ultimate allowable will be under the national Industrial Recovery Act, independent refiners of Texas must not only be assured of an equitable allocation of production on a national scale, so that the State will secure its rightful share, but also that the independent refining industry of the State may receive an adequate supply to run its plants on an economic basis. This involves the protection of its markets not only for the present but against the day when the emergency passes and the Government no longer acts in a supervisory capacity.

"I feel that I express the sentiment of the majority of those present when I say that the Texas independent refining industry will co-operate to the utmost with the various other trade associations in presenting a co-ordinated program to the administration, conceived to bring this great industry back to the position it should rightfully occupy."

Offices of the association will be in the Tower Petroleum Building, Dallas. Membership fees based on the throughput of the refineries owned by members was decided upon as the method for financing the association.

Overproduction Continuing in East Texas Area; Purchasers Are Still Soliciting Connections

By L. E. BREDBERG

DALLAS, Tex., June 26.—It was felt that when the price of crude in East Texas was doubled, to 50 cents per barrel, that the purchasing companies would cut their runs and would slow up on making new connections, but this has not been the case. Several major purchasers continue to solicit connections, getting many from those refiners or purchasers who have been paying below the posted price, in many instances taking more than the allowable in order to get the crude cheaper. The price is tightening, however, and while the scouts in the field state that at least 200,000 bbls. is being overproduced daily, this seems to have had no effect in curtailing connection solicitation by other companies. Apparently 50 cents is considered a low price for the high gravity crude, especially in view of the fact that refined products have been increasing materially during the past two weeks. If the refined market stays at the present level, or increases, premiums for East Texas oil will be paid, and another hike in price may be expected in the near future.

The Railroad Commission continues to make statements to the press that only from 5,000 to 10,000 bbls. of illicit crude is being produced daily, but a wink of the eye of one of the violators is sufficient to make one realize that something is wrong somewhere, either in tabulating shipments of crude, or checking those lines which have always been considered as carriers of alleged illegal oil.

If the field were eventually curbed to the 548,000-bbl. daily allowable set by the commission, with conditions improving as in the past three weeks, another price raise would no doubt soon be forthcoming, but with plenty of violations continuing the price can be expected to be pegged at its present level. With Governor Ferguson vetoing the felony bill, and the Sixth Court of Appeals of Texarkana holding against receiverships for alleged violators, producers have little to fear regardless of the Federal courts upholding the Railroad Commission's order, and consequently violations have been on the increase during the past 10 days.

A group of independent operators is to file suit this week against the present proration order. They are insistent that they need more oil and that the present allowable is too low.

Runs and Shipments Increase

Refinery runs and tank car shipments have been increasing in the field, fair proof that violations are on the gain. Operators and companies alike have been filing "back allowable" petitions with the commission. These petitions have been growing tremendously in number, and the commission has had to shut down temporarily on issuing permits for the producing of such oil. It also cut the daily limit of such oil from 50 to 25 bbls. per well daily. This will curtail a considerable amount of daily production.

Back allowable permits are no doubt the cause of overproduction in some instances, violators using these permits and back allowable oil as an excuse, and running several times the amount granted by the commission. One operator was said to have obtained a permit to produce 10,000 bbls. of so-called "back allowable" oil. When the field men of the commission visited his well and mentioned the rapid rate of producing by his well he merely showed them the permit, which seemingly was all right, but he was reported to have run 10 times the amount set down in the permit. It would no doubt be beneficial to the industry if such permits were not granted by the commission, and other permits canceled. Back allowable oil is now giving the commission trouble, and such troubles will increase if more such permits are granted the producers.

With no penalties on violators of proration orders it now appears that government control alone will be sufficient to curtail overproduction and shipments of such oil. No doubt many of the violators expect such control, therefore are taking steps to insure sufficient connections to serve their market demands.

Local refineries consumed nearly 78,000 bbls. per day during the week ending June 22, and tank car shipments had increased to over 70,000 bbls. per day. Runs through main lines averaged 743,345 bbls. This makes a total of over 891,300 bbls. of oil per day, or 243,000 bbls. per day above the allowable. Part of this oil may have come from storage in the field, but the majority of it is reported as being produced.

But with the large amount of oil being overproduced, and several of the major purchasers continuing to solicit connections, the market demand has evidently increased during the past three months, and there is at least a temporary place for all of the oil going out of this field.

Ask Separate Field

July 1 the railroad commission will hear a petition to set out a part of the extreme southern end of the Rusk County area as a separate pool. Wemack Oil Co., which owns a gas-oil producer in this area, is seeking such a division of the field. The petition seeks the division on the basis that a structural uplift passing along a line drawn east and west through the J. B. Camp, J. H. Sparks and Hemby Surveys, forms a barrier to sand sedimentation, as found in the main body of the field, and that the wells producing south of that line are in a separate pool. The company also holds that difference in gravity in oil in the north and south areas should be considered as showing two separate areas. The south end produces 34.4 gravity oil, whereas the oil to the north is of 40 gravity, according to the company.

Gas withdrawals from the southernmost area do not affect wells to the north of the line, according to the petition which asks that the company's No. 1 Arnold, in the William Christian Survey, in an area in which the total oil production does not aggregate 10,000 bbls. per day, be allowed to produce and sell and transport without any restrictions, except as may be necessary to prevent physical waste.

This well was the first dry gas producer drilled in the entire field. Several others have been drilled in the immediate area, the majority now producing some oil with the gas. Gas from some of the wells is used for drilling and producing leases to the north.

New Locations

There were 24 new locations staked in the field this week, but no wildcat locations reported. Fourteen wildcats, several of which have been shut down for a considerable time, were marked off the drilling report this week. One test was abandoned in Cherokee County, one in Delta, two in Ellis, one in Franklin, one in Henderson, three in Hopkins, two in Rusk, one deep one, a 5,119-foot test in Smith County, a test in the Jamestown area of Upshur and a shallow test in the Nacatosh area of Van Zandt County. This is somewhat of a pessimistic wildcat report, marking off the possibility of as many areas as tested.

Ed W. Bateman Drilling Co.'s No. 1 A. C. Carlisle, in the M. Elam Survey, Leon County, topped the Pecan Gap chalk at 3,912 feet this week. This top throws the test in a normal plane, and according to other tests, especially Shell Petroleum Corp. and others' test formerly drilled to the east.

Wadley, Lyons and others abandoned another test in the Jamestown area this week. This was on their Susie Smith tract, J. Helbert Survey, Upshur County. It topped the sand at 3,736 feet and on a drill stem test from 3,736-39 feet it tested a good showing of oil and gas and 29 joints of salt water. Total depth is 3,741 feet. Same operators' No. 3 Shettlesworth is shut down at 1,500 feet. No. 2 Shettlesworth made a small producer, but salt water showed up when it was swabbed to obtain more oil for drilling two other tests in the area. If this area had proven of considerable importance, producing several wells, these operators may have petitioned the Railroad Commission as did Womack Oil Co. on the south end of the field, to set aside this area as a separate field. This does not look necessary at the present writing.

A stimulated lease play is taking place in the northeastern part of Leon County, the southeastern corner of Freestone County, northwestern part of Houston County and southwestern corner of Anderson County. Instrument parties have been busy checking this area for the past few weeks, and several companies and independent operators have been busy assembling acreage in the area. Tide Water Oil Co. is one of the most active companies in the area. At least one test is expected within the next two or three months.

Corsicana Sale

Approximately 4,000 acres of leases, more than 1,000,000 feet of pipe of which a large amount will be salvaged for sale; gathering lines, pump and power stations, warehouses and other improvements, including wells and around 250 bbls. daily production in the old Corsicana Field, have been sold to Coffield and Guthrie of Rockdale, Tex. Magnolia Petroleum Co., owner of this property, scene of the first oil production in the Southwest, got its start in this shallow field, and opened the first refinery in the Southwest in the city near the producers. The company was not then known as the Magnolia. J. S. Cullinan, one of the founders of the company, opened the plant, but later it became the Magnolia Petroleum Co. Many of the original wells have been abandoned, but there are still a good number of producers putting out a small amount of production on the pump. The pool was discovered in 1896.

The main lines of the Magnolia Pipe Line Co., running through Corsicana, are not affected by the sale. W. S. Guthrie of the purchasing company will take personal charge of the property.

On June 22 an interesting decision was handed down by a three-judge Federal court sitting in Austin. The court dismissed a suit against the Railroad Commission brought by M. Coppard, and Monte Oil Co., in which an injunction was sought to prevent the commission from enforcing its proration orders as to the plaintiffs who alleged that adjoining lease holders had exceeded the commission's allowable and drained their oil, in compensation for which they desired an order permitting them to produce not exceeding 2,000 bbls. a day until 137,000 bbls. had been marketed.

East Central Texas Wildcats

Week Ending June 24

ANGELINA COUNTY

Company, well, farm name, section and block—	Remarks
LaRue-Smith et al's No. 1 J. Perkins, center of W 32 acres of J. Perkins 55-ac. tract, Antonio Flores Sur.	S.D. 1,500 ft.

FREESTONE COUNTY

Clyde Creighton's No. 1 Holley Bros., 354 ft. from W line and center of N and S lines of lease, A.B.M. Sur.	Drlg. 4,875 ft.
Devonian Oil Co.'s No. 1 J. G. Beall, 330 ft. out of SE cor. of 320-ac. tract, 2 miles SW of Donie, Isaac Connelly Sur.	Derrick.

GREGG COUNTY

Columbia Oil & Gas Co.'s No. 2 T. Snoddy, 350 ft. from N line and 2,150 ft. from E line of survey, W. H. Castleberry Sur.	Drlg. 2,725 ft.
Commodore Oil Co.'s No. 1 W. Smith, 1,400 ft. from N line and 2,350 ft. from W line of survey, J. S. Carrithers Sur.	Set surface csg.
East Texas Refining Co.'s No. 6 F. White, 330 ft. from N line of lease, 660 ft. E of No. 5, H. Edwards Sur.	Waiting on cmt. to set 3,600 ft.
East Texas Refining Co.'s No. 5 B. Doby, 83.8 ft. N and 65 ft. of NW cor. of Stanolind's Meadow lease, M. Mann Sur.	Rig up.
East Texas Refining Co.'s No. 4 C. Fisher, 3,000 ft. from N line and 2,540 ft. from E line of survey, J. Ruddle Sur.	Derrick.
Gulf Production Co.'s No. 25 M. O. Sheppard, 1,785 ft. N and 480 ft. E of most westerly SW cor. of lease, G. R. Rains Sur.	Spudded.
Gulf Production Co.'s No. 9 Lacy & Snider, 6,920 ft. from N line and 2,700 ft. from E line of survey, W. H. Castleberry Sur.	Rig up.

(Continued on Page 43)

COMPLETIONS IN EAST TEXAS

North Gregg County

East Texas Refining Co.'s No. 4 D. Caldwell, top sand 3,502 feet, initial production 15 bbls. in 20 minutes through open tubing, total depth 3,525 feet. Gulf Production Co.'s No. 26 M. O. Sheppard, top sand 3,485 feet, initial production 75 bbls. per hour through open tubing, total depth 3,515 feet. Humble Oil & Refining Co.'s No. 10 A. Carter, top sand 3,606 feet, initial production 60 bbls. per hour through three-quarters inch tubing choke, total depth 3,637 feet. Rainey and others' No. 1 State, top sand 3,470 feet, initial production 75 bbls. per hour through open tubing, total depth 3,515 feet.

(Continued on Page 41)

First Drilling in Yates District in Several Months; Water Appearing in Big Lake Field Wells

By L. E. BREDBERG
Fort Worth Bureau, The Oil and Gas Journal

FORT WORTH, Tex., June 26.—The Yates Field, Pecos County, is to see the first drilling witnessed in months. M. D. Bryant, of San Angelo, has purchased an interest of 21 ownerships in 3.97 acres out of the south end of the Bob Reid Survey No. 1, in Block 194, G.C.&S.F. Survey, in the east part of Section 34, and the northeast part of Section 33. He has also purchased 3.97 acres from W. D. Turchill of Austin, which adjoins the Reid tract on the south. Two wells will be started at the same time, one on each of the strips. These will in turn cause offsets to be drilled by companies holding such acreage.

These tracts come as a result of a recent decision in cases involving vacancies and boundary lines in and adjacent to the Yates Pool. On June 23 the Supreme Court overruled all motions for rehearings in these cases which had been pending for several years tieing up several millions of dollars in oil royalty and rentals.

Surveys have been completed in the same field in regard to a suit filed by Guy Holcombe of Austin and San Antonio to have declared as vacant lands a strip which may be as much as 2 miles long. Defendants include the Mid-Kansas Oil & Gas Co., Continental Oil Co. and numerous royalty holders. The land which Mr. Holcombe declares a vacancy may extend 200 to 1,100 varas north and south and approximately 2 miles long between Surveys 60 and 61, Block 1, I.&G.N. Survey. This strip has Mid-Kansas Oil & Gas Co.'s No. 30-A Yates on it, claimed as the largest oil producing well in the world.

A. N. Lea, Pecos County surveyor, made the recent surveys on orders of the District Court at Fort Stockton after Mr. Holcombe's application to the land office for a vacancy had been rejected. Mr. Holcombe filed a mandamus action at Fort Stockton, forcing the survey. This new action follows on the heels of the Supreme Court decision.

Water in Big Lake

News of exceptional interest comes from the Big Lake Field, Reagan County, in which there are 15 wells producing from the Ordovician lime, below 8,000 feet. Out of seven wells drilled by Group No. 1 Oil Corp., four are reported as now being dry, one is making 10 per cent salt water, one is making 55 per cent salt water and another is making 70 per cent water. None of Big Lake Oil Co.'s wells is yet reported in such critical condition.

Group No. 1 Oil Corp. has made location for another deep test, one-half mile removed from the salt water wells and other deep producers, and to the east or in the direction of land held by Group No. 2 Oil Corp. on which no deep tests have ever been drilled. This will be an interesting test as it will have great bearing on values of property held by the latter company, and also because it will extend or limit production of the deep pay producing area of the field.

Ector County

Ector County holds the interest of those operating in the Permian Basin. Two producers are now in the making in the Addis area, Section 35, Block 43, Township 2s, T.&P. Survey. Turner and others' No. 1-A Addis, three-eighths of a mile southeast of the discovery well, has been spraying an estimated 12 bbls. of oil hourly with around 6,000,000 feet of gas daily when drilling to 3,956 feet. First gas was hit at 3,822 feet, increasing at 3,866 feet, and striking two other gas increases before logging oil at 3,900 feet with an increase from 3,930-40 feet.

Waggoner-Western Corp.'s No. 1 Addis, a quarter of a mile south of the discovery well, made two heads while cleaning out after a 410-quart shot from 3,865-70 feet, and is estimated good for 100 bbls. daily.

W. A. Cherry and others' No. 1 J. L. Johnson, a wildcat 7 miles northwest of the Addis discovery well, had a good showing of oil from 4,025-30 feet and another at 4,051-56 feet. However, no more showings were logged in drilling to 4,125 feet. It will no doubt be drilled deeper or the upper showing given a shot before going down. If this test proves a producer it will be considered a connecting link between the Addis area to the south and the Cowden area to the north. The latter area has four producing wells.

The Humble Pipe Line Co. has been laying a line to the two areas but ran into difficulty this week when a rancher hauled in some of the pipe to his corral, holding it until a compromise is made in regard to right of way charges.

Another test is to be drilled in the vicinity of the Cowden producers. Frank Gilpin of Fort Worth and E. M. Wahlenmaier of San Angelo will drill a test in Section 32, Block 43, Township 1n, T.& P. Survey, 2 miles west of Stanolind Oil & Gas Co.'s No. 2 Cowden.

Schleicher County

Eastland Oil Co. and others' No. 1 Tisdale, Schleicher County Ordovician test, struck 1½ bailers of salt water hourly at 6,015 feet but drilled to 6,019 feet in hard lime. Phillips Petroleum Co. is drilling this well, as well as No. 1 W. R. Nicks in the same county. The latter test is past 6,630 feet in sand and shale.

RANGER AND WICHITA FALLS

There are hundreds of wells in the Ranger and Wichita Falls districts still being held shut in waiting on another price increase, the operators feeling that holding in the production, and improved conditions will result in another increase in the near future.

In the extreme northwest corner of Eastland County John Shertzer of Cisco has purchased the old Natures Treasure Oil Co.'s No. 1 McLelland for a reported $25,000. The sale also includes 354 acres in Section 466, S.P.R.R. Survey. The well was originally completed for a 5,000,000-foot gasser three years ago.

The new owner will lay 12 miles of gas line to the Octane Refining Co.'s refinery at Chautauqua switch in northeast Callahan County, selling the gas for fuel for the plant and also for repressuring leases owned by the Woodley Petroleum Co.'s leases in the Hatchett and Moutray Pools.

Approximately 750 wells in the Red River bed, northwest of the Burkburnett Pool, Wichita County, which have been shut in since May 2 on account of the low price of oil, are now being repressured to place back on production. These wells make around a barrel each per day. The Bell Oil & Gas Co. is taking the oil and running to its refinery nearby in Oklahoma.

Iron Mountain Oil Co., with offices in Fort Worth, has purchased several producing leases from Wooten and Reed in the shallow district of northeast Young County. Ten wells were included in the deal, producing around 67 bbls. daily. The land involved in the deal is located in Sections 3,403, 1,465, 1,466 and 1,467, T.E.&L. Survey.

Foard County

Texas Co.'s No. 3 Johnson in Section 38, Block L, S.P.R.R. Survey, on the west edge of Foard County, encountered a fourth gas sand at 3,500 feet. Two feet in the sand it was making an estimated 1,000,000 feet of gas. The gas will be mudded off and the well drilled deeper for oil. Elevation is 1,625 feet.

Taylor County

E. G. Shawl is to drill an interesting test on the C. Smith farm in the John Jarmon Survey No. 82, Abstract 187, 2 miles north of Abilene in Taylor County.

Fisher County

Cranfill & Reynolds have drilled a test to the salt water sand on their T. Willingham lease in the W half, Section 199, B.B.B.&C. Survey, into which they will run salt water from their leases in the pool in this, the northeastern corner of Fisher County.

Wildcat Operations in West Texas

Week Ending June 26

CONCHO COUNTY

Company, well, farm name, section and block—	Remarks:
Beasley et al's No. 1 Waring Estate, 400 ft. from N and E, Sec. 163, T.&N.O. Sur.	T.D. 2,586 ft.; pumping 5 bbls. oil per day and some water.

CRANE COUNTY

Loffland Bros.' No. 1 Tubbs, 1,334 ft. from N line and 1,320 ft. from W line of Sec. 9, Blk. B-27, P.S.L. Sur.	T.D. 335 ft.

CULBERSON COUNTY

Miller Bros.' No. 1 fee, 1,986 ft. from N line and 660 ft. from E line of Sec. 61, Blk. 97, P.S.L. Sur.	Drlg. 1,010 ft.

ECTOR COUNTY

Cherry et al's No. 1 Johnson, 1,320 ft. from S line and 660 ft. from E line of Sec. 41, Blk. 43, Twp. 1s, T.&P. Sur.	Drlg. 4,125 ft.
L. C. Harrison et al's No. 1 Addis, 330 ft. from N and 1,320 ft. from W, Sec. 35, Blk. 43, Twp. 2s, T.&P. Sur.	Flowing average of 375 bbls. oil per day to tanks; T.D. 4,061 ft.
Landreth Prod. and The Texas Company's No. 1 Holt, 660 ft. from S line and 2,035 ft. from E line of Sec. 16, Blk. 43, Twp. 1s, T.&P. Sur.	S.D. 4,450 ft.; swabbed 136 bbls. of oil and est. 3 bbls. of water.
Thomas et al's No. 1 Edwards, 330 ft. from S, 2,310 ft. from E, Sec. 38, Blk. 43, Twp. 2s, T.&P. Sur.	Set casing at 3,327 ft.
Fred Turner's No. 1-A Addis, 1,650 ft. from N line and 2,200 ft. from E line of Sec. 35, Blk. 45, Twp. 2s, T.&P. Sur.	Drlg. 3,956 ft.; spraying 6 bbls. of oil per hour.

FISHER COUNTY

Cranfill & Reynolds' No. 2 George, 330 ft. from N and W lines of NE of Sec. 200, Blk. 1, B.B.B.&C. Sur.	Drlg. 2,535 ft.
Southern Oil Co.'s No. 1 Beavers, 330 ft. from W and 660 ft. from S of S half of SW Sec. 193, B.B.B.&C. Sur.	S.D. 3,055 ft.

GARZA COUNTY

F.H.E. Oil Co.'s No. 1 Stoker	T.D. 2,909 ft.

GLASSCOCK COUNTY

Humble Oil & Refining Co.'s No. 1 Washer, 330 ft. from N line and 330 ft. from E line of Section 20, Blk. 33, Twp. 3s, T.&P. Sur.	1,800 ft. oil in hole; S.D.; T.D. 2,121 ft.

HOWARD COUNTY

M. D. Bryant et al's No. 1 L. C. Denman, 1,31e ft. from S and W lines of Sec. 16, Blk. 30, Twp. 1s, T.&P. Sur.	S.D. 2,362 ft.
Eppenauer et al's No. 1 Leatherwood, C of SE of NW, Sec. 25, Blk. 33, Twp. 1n, T.&P. Sur.	Material on ground.
L. C. Harrison's No. 4 L. C. Denman, 2,370 ft. from the E line and 1,335 ft. from S line of Sec. 16, T.&P.R.R. Sur., Blk. 30, Twp. 1s	S.D. 3,003 ft.

JONES COUNTY

Dyer's No. 1 Odom, 300 ft. from S and 170 ft. from W of N 320 acres, G. Zumwalt Sur	Fishing 480 ft.

LOVING COUNTY.

Eppenauer Drlg. Co.'s No. 1-A Victor, 330 ft. from SW and 330 ft. from SE of NW of N half Sec. 4, Blk. 2, W.&N.W. Sur.	Rigging up standard tools

(Continued on Page 43)

COMPLETIONS IN WEST TEXAS

Glasscock County

Wooten's No. 1 Edwards, top pay 2,164 feet, initial production on proration gauge, 314 bbls. per day, total depth 2,195 feet.

Howard County

Sinclair Prairie Oil Co.'s No. 1 Denman, top pay 2,640 feet, initial production 90 bbls. per day pumping, total depth 2,814 feet.

Pecos County

Mid-Kansas Oil & Gas Co.'s No. 10-A Yates, old well drilled deeper, old total depth 1,075 feet, no increases, deepened to lower gas-oil ratio, total depth 1,087 feet.

Reagan County

Big Lake Oil Co.'s No. 9-C University, top pay 8,457-70 feet, increase 8,520-30 feet, initial production 350 bbls. per hour and 70,000,000 feet of gas, total depth 8,647 feet.

Ward County

Eastland Oil Co.'s No. 2 Gumas, abandoned location. Gulf Production Co.'s No. 17 Hutchings, top pay 2,545 feet, initial production 236 bbls. of oil in 18 hours flowing through tubing, total depth 2,750 feet. Humble Oil & Refining Co.'s No. 1 Richter, gas shows 2,382-85 feet, 2,400-07 feet, and 2,409-12 feet, top pay 2,459-64 feet, initial production 50 bbls. of oil per day flowing through one-half inch choke, total depth 2,560 feet. Skelly Oil Co.'s No. 2 Brillhart, top pay 2,470-89 feet, initial production 18 bbls. of oil per day flowing through tubing, total depth 2,513 feet.

COMPLETIONS IN PANHANDLE DISTRICT

Gray County

Phillips Petroleum Co.'s No. 3 Palmer, old well drilled deeper, new total depth 2,979 feet, initial production 526 bbls. in 10 days on railroad commission test.

East Texas Fields

(Continued from Page 39)

Yount-Lee Oil Co.'s No. 7 V. Calvin, top sand 3,581 feet, initial production 63 bbls. per hour through eleven-sixteenths inch tubing choke, total depth 3,601 feet; No. 4 M. M. Custer, top sand 3,537 feet, initial production 45 bbls. per hour through eleven-sixteenths inch tubing choke, total depth 3,548 feet.

South Gregg County

Dearing and others' No. 1 Church, top pay 3,537 feet, initial production 15 bbls. per hour flowing through open tubing, total depth 3,580 feet. Gulf Production Co.'s No. 51 Hilburn estate, top sand 3,564 feet, initial production 80 bbls. per hour through open tubing, total depth 3,558 feet; No. 11 Muckelroy, top sand 3,548 feet, initial production 75 bbls. per hour through open tubing, total depth 3,558 feet. Magnolia Petroleum Co.'s No. 4 M. T. Cole, top sand 3,667 feet, initial production 112 bbls. per hour through open tubing, total depth 3,573 feet. Sun Oil Co.'s No. 6 A. G. Morton, top sand 3,498 feet, initial production 38 bbls. per hour through open tubing, total depth 3,514 feet. Texas Co.'s No. 16 M. T. Cole, top sand 3,510 feet, initial production 32 bbls. per hour through open tubing, total depth 3,552 feet.

North Rusk County

Ajo Oil Co.'s No. 4 Sanders, top sand 3,703 feet, initial production 100 bbls. per hour through open tubing, total depth 3,734 feet. Hasting & Dodson's No. 1 E. B. S. Florey, top sand 3,680 feet, initial production 10 bbls. per hour through open tubing, total depth 3,682 feet. Snowden & McSweeney's No. 10 R. Laird, top sand 3,593 feet, initial production 72 bbls. in one-half hour through open tubing, total depth 3,606 feet. Turman Oil Co.'s No. 7 Brightwell, top sand 3,628 feet, initial production 115 bbls. per hour through open tubing, total depth 3,651 feet.

South Rusk County

Nathan Pipe & Supply Co.'s No. 1 Joe Lee, top sand 3,642 feet, initial production 25 bbls. per day pumping, total depth 3,646 feet, Peter Tipps Survey. Betty Oil Co.'s No. 1 B. F. Maxwell, top sand 3,672 feet, initial production 100 bbls. per hour through open tubing, total depth 3,734 feet. George Demonstrand's No. 5 L. J. Pinkston, top sand 3,597 feet, initial production 75 bbls. per hour through open tubing, total depth 3,638 feet. Gulf Production Co.'s No. 7 C. H. Grissom, location abandoned; No. 8 Grissom, top sand 3,675 feet, initial production 65 bbls. per hour through open tubing, total depth 3,682 feet; No. 5 W. A. Maxwell, top sand 3,746 feet, initial production 70 bbls. per hour through open tubing, total depth 3,764 feet. Humble Oil & Refining Co.'s No. 2-A M. Smith, top sand 3,637 feet, initial production swabbing 25 bbls. per day, total depth 3,691 feet. Mid-Kansas Oil & Gas Co.'s No. 30 W. T. Grissom, top sand 3,669 feet, initial production 98 bbls. per hour through 2-inch lead, total depth 3,679 feet; No. 14 E. E. Moores, top sand 3,684 feet, initial production 56 bbls. per hour through 2-inch lead line, total depth 3,746 feet. Pinkston and others' No. 1 E. L. Pinkston, top sand 3,518 feet, initial production 35 bbls. per day pumping, total depth 3,600 feet, M. V. Pena Survey. Texas-Jersey Oil Corp.'s No. 1 Gaston Industrial School, top sand 3,640 feet, initial production 85 bbls. per hour through open tubing, total depth 3,660 feet. C. K. West's No. 4 S. and N. Clay, top sand 3,640 feet, initial production 50 bbls. per hour through open tubing, total depth 3,660 feet.

Upshur County

Salome-Cooper Drilling Co.'s No. 7 M. O'Byrne, top sand 3,678 feet, initial production 37 bbls. per hour through open tubing, total depth 3,690 feet.

WILDCAT COMPLETIONS

Cherokee County

Wilson-Stubbs Oil Co.'s No. 1 Lucy Rowborts, dry and abandoned, total depth 3,600 feet; elevation 520 feet; J. D. Wolfin Survey.

Ellis County

Armstrong Brothers' No. 1 Winn, dry and abandoned, total depth 1,435 feet. Clark Brooks' No. 1 Anderson, top Woodbine sand 530 feet, top Del Rio 735 feet, top Georgetown lime 900 feet, dry and abandoned, total depth 1,030 feet.

Franklin County

Fred Prince and others' No. 1 E. L. Phillips, top Pecan Gap 1,447 feet, base 1,482 feet, top red beds 3,045 feet, elevation 362 feet, dry and abandoned, total depth 3,387 feet. W. Birdwell Survey.

Delta County

Commerce Oil Co.'s No. 1 Ablowich, dry and abandoned, total depth 3,813 feet.

Hopkins County

Burgess and Sinson's No. 1 First National Bank top Pecan Gap 1,543 feet, base 1,598 feet, top Austin chalk 2,440 feet, elevation 385 feet, M.E.P.&P.R.R. Survey. E. P. Corley's No. 1 Jumper, elevation 563 feet, dry and abandoned, total depth 1,630 feet, J. Webb Survey. S. N. Stausfer's No. 1 First National Bank, dry and abandoned, total depth 500 feet.

Henderson County

Dr. J. T. Kennon and others' No. 1 Rowe and Baker, dry and abandoned, total depth 920 feet, J. T. Childress Survey.

Rusk County

Paulett and others' No. 3 Ed Sparks, elevation 444 feet, dry and abandoned, total depth 1,463 feet. Lassiter's No. 1 Burton, top Pecan Gap 2,449 feet, base 2,856 feet, top Austin chalk 3,167 feet, dry and abandoned, total depth 3,430 feet.

Smith County

Mundt and others' No. 1 O. G. Funderburg, top Pecan Gap 3,502 feet, base 3,956 feet, top sand 3,089 feet, elevation 565 feet, dry and abandoned, total depth 5,119 feet.

Upshur County

Wadley and Lyons' No. 1 Mrs. Susie Smith, top Pecan Gap 2,350 feet, base 2,960 feet, top Austin chalk 3,682 feet, base 3,724 feet, top sand 3,736 feet, drill stem test 3,736-39 feet, tested 29 joints of pipe full of salt water and good show oil and gas, dry and abandoned, total depth 3,741 feet, J. Helbert Survey.

Van Zandt County

C. P. Cole and others' No. 1 Mrs. S. Tunnell, elevation 525 feet, dry and abandoned, total depth 1,380 feet (M. Gross Survey). Pure Oil Co.'s No. 7 O. L. Swain, initial production first 24-hour gauge after choked for proration 250 bbls., total depth 2,922 feet.

Marvelous Fidelity to Detail Seen in The Texas Co.'s Model Cable-Tool Rig

Thousands who examined the model cable tool drilling rig exhibited by the Texas Co. at 1400 Boardwalk, Atlantic City, N. J., expressed admiration of the ingenuity and skill with which each minute feature had been brought out, but to gain some comprehension of the labor and patience that went into this creation it would be well to talk with M. S. Curtis, manager of sales promotion for the Youngstown Sheet & Tube Co., who built the model.

Mrs. Curtis could tell some things about it, too, for at times in assembling intricate parts of the rig her husband had to call on the whole family and the maid for help.

Mr. Curtis built the rig in a workshop which he installed in the basement of his residence in Youngstown, Ohio. The job, which consumed four and one-half months, was done in spare time, if you can apply the word "spare" to hours which by all the ordinary rules of living a man ought to spend in bed. Often he worked till 2 or 3 o'clock in the morning.

This model is exactly to scale, three-quarter inch to 1 foot, or one-sixteenth actual size. The derrick is therefore a model of an 80-footer. It is 66 inches high from the base to the bottom of the gin pole. It stands on a 4 by 8-foot foundation.

The derrick angles are seven-sixteenths inch and were of course rolled to order. Cross bracing is of specially drawn one-quarter inch and three-sixteenths inch angles. The derrick has a safety factor of 6.

The bolts and nuts used in assembling the derrick are almost small enough to go into a watch. Nuts and bolt heads were only five-sixty-fourths inch in diameter. The derrick was built on a collapsible templet. Three gross of these small bolts and nuts were used in building the rig. All these bolts and nuts were made to order. The boiler, faithful to the original in every detail, contains 536 rivets.

For fidelity to detail this model is regarded as amazing. Attention is called to the tiny temper screw, the small traveling block, the electric lights and so on.

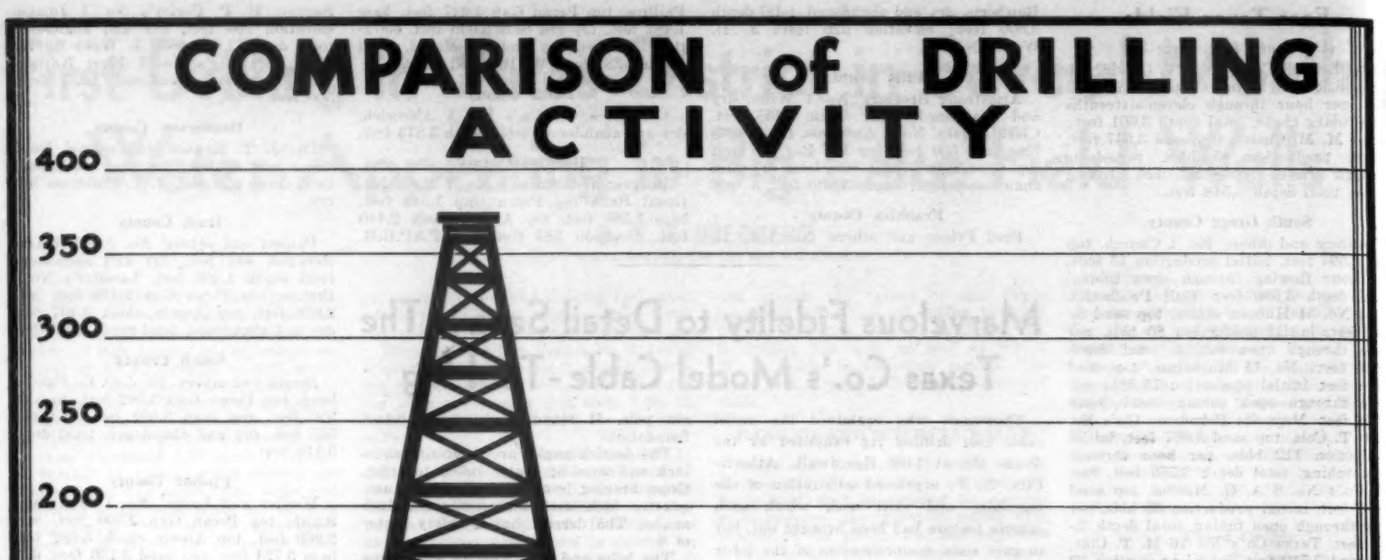
An experienced driller would find only one small fault, namely, the brake band as seen in the picture is reversed. However, this has been corrected since the photographs were taken.

After the unit was completely assembled and drilling commenced, Mr. Curtis found that he could make 4 inches of "hole" in one hour, drilling through the concrete floor of his garage.

ROCKY MOUNTAIN AREA

Estimated daily production for the week ending June 24 follows:

WYOMING	
Salt Creek	19,120
Big Muddy	1,830
Badger Basin	40
Byron-Garland	100
Byron-East	0
Dallas Derby	540
Dutton Creek	0
Elk Basin	560
Ferris	30
Frannie	230
Grass Creek	shut in
Greybull	0
Hamilton Dome	840
Hudson	370
LaBarge	1,020
Lance Creek	310
Lost Soldier	1,860
Mule Creek	shut in
Midway	70
Notches	shut in
Oregon Basin	280
Osage	620
Pilot Butte	30
Rex Lake	20
Rock River	1,300
South Casper	shut in
Poison Spider	250
Teapot	20
Warm Springs	0
Total	29,240
MONTANA	
Buckley-Border	270
Cat Creek	710
Cut Bank	660
Dry Creek	530
Kevin-Sunburst	3,420
Lake Basin	50
Pondera	860
Total	6,650
COLORADO	
Florence	200
Fort Collins and Wellington	620
Iles Dome	580
Moffat	530
Orchard	140
Rangely	80
Tow Creek	250
Total	2,400
NEW MEXICO	
Artesia	530
Cooper area	70
Empire area	0
Eunice area	560
Getty Pool	0
Hobbs	28,810
Hogback	210
Hospah	shut in
Jal	1,540
Lea area	2,140
Jackson	670
Maljamar	230
Rattlesnake	670
Table Mesa	80
Total	35,500
Total all fields	73,790
Previous week	75,180
Difference	1,390



Oklahoma Wells Drilling:- 368

Texas Gulf Coast Wells Drilling:- 150

Those who have followed the official figures of the U. S. Bureau of Mines on rigs up and wells drilling from month to month have noted that throughout the period in which the Texas Gulf Coast has been enjoying a boom, actual number of drilling wells in the Texas Gulf Coast has nevertheless been considerably less than half of the number drilling in Oklahoma.

The established facts regarding the oil geology of Oklahoma are such as to assure constant drilling activity in the state for many years to come. The Oklahoma City and the Wentz pools were outposts that made known an entirely new province extending entirely across the state. Leasing activity in Oklahoma at this time indicates that drilling activity will increase rapidly over the next few years.

Oil geologists also predict important oil developments in the Texas Panhandle, Western Kansas, Northeast Colorado and Nebraska, which will tend to balance up the recent development in the Southern part of the Mid-continent area.

The Midcontinent oil area is producing approximately 63% of the nation's petroleum. Tulsa lies at the hub of this great area and is the headquarters city for a large majority of the major oil companies which operate in the Midcontinent. There are 476 oil companies, 44 drilling companies, 43 pipe line companies, 18 gasoline companies, with headquarters in Tulsa. Their executives and purchasing agents live here. Their orders for oil equipment, totalling around $400,000,000 annually, are placed from Tulsa. Tulsa's position as Oil Capital of the World is becoming stronger with every month that passes. Within the past four months, four major oil companies have moved their executive headquarters to Tulsa, one from Denver, one from St. Louis, two from Midcontinent points.

Tulsa is the world's major buying center, for oil equipment. Equipment manufacturers, for close contact with customers and prospects, should have branch offices and warehouse stocks in Tulsa. For the facts in detail address the Tulsa Chamber of Commerce.

TULSA

Oil Capital of the World

East Central Texas Wildcats

(Continued from Page 39)

Magnolia Petroleum Co.'s No. 9 O. F. Smith, 5,050 ft. from N line and 1,980 ft. from E line of survey, H. Edwards Sur. ..... Derrick.

Magnolia Petroleum Co.'s No. 4 Laird-Crim, 460 ft. from S line and 5,000 ft. from E line of survey, L. B. Outlaw Sur. ..... Rig up.

Mansell and Reynolds' No. 1 Mrs. Compton, 30 ft. from S line and 150 ft. from W line of Blk. No. 30, H. R. Hokit Sur. ..... Drlg. 2,800 ft.

J. Niblack's No. 1 S. Carr, 500 ft. from S line and 550 ft. from W line of survey, M. McCurry Sur. ..... Running csg. 3,484 ft.

W. H. Peckham's No. 1 J. W. Akin, 147 ft. S and 856 ft. E of SW cor. of Empire's Akin lease, W. H. Castleberry Sur. ..... Rig up.

Pilot Oil Co.'s No. 1 Hoyt, 482 ft. E and 265 ft. S of SW cor. of Stanolind's Akin lease, J. Mosley Sur. ..... Rig up.

Pilot Oil Co.'s No. 1 Whatley, 1,250 ft. from S line and 160 ft. from W line of survey, William Robinson Sur. ..... Rig up.

Rabbit Creek Oil Co.'s No. 2 Elder, 380 ft. from W line and 73 ft. from S line of survey, John Wilkerson Sur. ..... Set surface csg.

Rosier and Pendleton's No. 6-A Nicholson, 353 ft. from S line and 330 ft. from E line of lease, M. Mann Sur. ..... Waiting on cmt. to set 3,645 ft.

Shell Petroleum Corp.'s No. 7 Bates, 5,650 ft. from N line and 3,270 ft. from W line of survey ..... Drlg. 2,328 ft.

Sinclair Prairie Oil Co.'s No. 15 A. A. Lockhart, 157 ft. from N line and 3,020 ft. from W line of survey, A. Norris Sur. ..... Waiting on cmt. to set 3,638 ft.

A. L. Slaughter's No. 1 R. B. White, 480 ft. from N line and 30 ft. from E line of survey, C. H. Alexandria Sur. ..... Drlg. 1,025 ft.

Sun Oil Co.'s No. 4 E. Smith, 1,800 ft. from N line and 330 ft. from W line of survey, M. Scott Sur. .... Waiting on cmt. to set 3,626 ft.

Sun Oil Co.'s No. 7 A. G. Morton, 660 ft. N of No. 5 and 333 ft. from W line of lease, S. Baggett Sur. .. Drlg. 1,846 ft.

Superior Oil Co.'s No. 16 Ingram, 1,800 ft. from N line and 1,430 ft. from W line of survey, W. E. Pasteur Sur. ..... Waiting on cmt. to set 3,500 ft.

Superior Oil Co.'s No. 4-B Pritchard, 3,050 ft. W and 500 ft. N of SW cor. of William Pasteur Sur. ..... Derrick.

Tide Water Oil Co.'s No. 7 T. Bell, 1,700 ft. from N line and 2,600 ft. from W line of survey, G. F. Penn Sur. ..... Drlg. 3,010 ft.

Towns' No. 1 Leak, 100 ft. from S line and 200 ft. from W line of survey, B. W. Witcher Sur. ..... Drlg. 3,663 ft.

Wise and Jackson's No. 5 Rosa Corbin, 5,860 ft. from S line and 2,250 ft. from E line of survey, H. Edwards Sur. ..... Rig up.

Yeager et al's No. 1 Howard, 660 ft. E of Harry Lewis' No. 1 King, Mary Scott Sur. ..... Waiting on cmt. to set 3,540 ft.

HENDERSON COUNTY

McElreath and Suggett et al's No. 1 Ferguson, 330 ft. out of most southerly NW cor. of 252.8-ac. tract, William P. Wyche Sur. ..... Derrick.

HOPKINS COUNTY

Culberson & Lynch's No. 1 Louis Stribling, 150 ft. from NW cor. of tract and lease, Thomas Norris Sur. .. Rig up.

Delworth-Hogan and Ashby's No. 1 Logan, 250 ft. from S and E lines of 175-ac. tract, A. L. Wetman Sur. .. Rig up.

Pete Wiggins et al's No. 1 fee, 400 ft. from S line and 567 ft. from W line of 48-ac. tract, Nacogdoches University Lands Sur. ..... Drlg. 2,352 ft.

HUNT COUNTY

Solar Exploration Co.'s No. 1 Smith, 210 ft. from E line and 376 ft. from S line of lease, William Glass Sur. ..... T.D. 1,500 ft.

Solar Exploration Co.'s No. 1-A N. A. Gregory, 150 ft. from W line and 450 ft. from S line of lease, William Glass Sur. ..... S.D. 1,375 ft.

LEON COUNTY

Bateman et al's No. 1 A. C. Carlyle, 150 ft. out of NE cor. of survey, Mary Ellen Sur. ..... Drlg. 3,600 ft.

Shell Petroleum Corp.'s No. 1 Boggs, center of 123.5-ac. tract, John Carter Sur. ..... Spudding 100 ft.

LIMESTONE COUNTY

C. C. Curtis et al's No. 1 Emma Daniels, 150 ft. from W line and 150 ft. from S line of 42.5-ac. tract in Pedro Varela Sur. ..... Set surface csg. 40 ft.

RED RIVER COUNTY

Ajo Oil Co.'s No. 1 Nickels & Daniels, center of S 730 acres of 1,808-ac. tract, 8 miles N of English, Hugh B. Shaw Sur. ..... Drlg. 150 ft.

RUSK COUNTY

J. Boren's No. 3 A. Holt, 1,500 ft. from N line and 1,230 ft. from W line of survey, D. Clark Sur. ..... Rig up.

Combined Oil Co.'s No. 14 G. W. Eaton, 330 ft. from S line and midway between Nos. 6 and 9, F. Cordova Sur. ..... Derrick.

Cordova Union Oil Co.'s No. 1-D C. O. Christian, 1,490 ft. from N line and 1,880 ft. from W line of survey, D. Clark Sur. ..... Drlg. 2,705 ft.

Griffin & Barnes' No. 1 fee, 12 ft. from S and W lines of 2-ac. tract, J. B. De Cadena Sur. ..... Waiting on cmt. to set.

Gulf Production Co.'s No. 7 C. H. Grissom, 4,760 ft. from S line and 4,800 ft. from W line of survey, F. Cordova Sur. ..... Derrick.

Gulf Production Co.'s No. 25 G. G. Turner, 3,180 ft. from N line and 5,800 ft. from W line of survey, F. Cordova Sur. ..... Drlg. 3,113 ft.

Gulf Production Co.'s No. 7-C Mayfield Co., 4,200 ft. from W line and 3,520 ft. from N line of survey, J. B. De Cadena Sur. ..... Rig up.

Gulf Production Co.'s No. 8-C Mayfield Co., 3,110 ft. from W line and 3,520 ft. from N line of survey, J. B. De Cadena Sur. ..... Derrick.

H. L. Hunt's No. 9-A H. C. Maxwell, 150 ft. from E line and midway between No. 1-A, F. Cordova Sur. .. Drlg. 3,725 ft.

Jordan & Ramsey's No. 1 L. W. Prior, 330 ft. from N line and 697 ft. from E line of 53-ac. lease, Walker Petit Sur. ..... S.D. 1,910 ft.

Lion Oil & Refining Co.'s No. 10-B H. Brooks, 5,520 ft. from S line and 1,420 ft. from E line of survey, M. J. Pru Sur. ..... Waiting on cmt. to set 3,650 ft.

Martin and Cockburn's No. 4 J. P. Cansler, 1,620 ft. from N line and 1,130 ft. from W line of survey, E. Collard Sur. ..... Rig up.

Mid-Kansas Oil & Gas Co.'s No. 1 Robert Van Zandt, 1,133 ft. S and 358 ft. E of SW cor. of Stanolind-Pure, Rae Lacy 100-ac. tract, J. H. Sparks Sur. .... Drlg. 885 ft.

Mid-Kansas Oil & Gas Co.'s No. 13 S. H. Moores, 2,800 ft. from E line and 790 ft. from S line of survey, M. J. Pru Sur. ..... Rig up.

Mid-Kansas Oil & Gas Co.'s No. 14 E. E. Moores, 140 ft. from S line and 3,260 ft. from E line of survey, M. J. Pru Sur. ..... Rig up.

Mid-Kansas Oil & Gas Co.'s No. 15 E. E. Moores, 3,720 ft. from E line and 660 ft. from N line of survey, J. B. De Cadena Sur. ..... Derrick.

Walker Murray et al's No. 1 W. H. Arnold, 330 ft. from S and W lines of 50-ac. tract, Levi N. Sparks Sur. ..... S.D. 3,165 ft.

Patterson Drlg. Co.'s No. 3 Brock Estate, 2,330 ft. from N line and 100 ft. from E line of survey, R. W. Smith Sur. ..... Derrick.

Rodgers et al's No. 1 D. Bradford, 3,490 ft. from S line and 5,410 ft. from W line of survey, Juan Ximenes Sur. ..... Drlg. 1,825 ft.

Shell Petroleum Corp.'s No. 13 W. P. Moore, 1,740 ft. from S line and 330 ft. from E line of survey, H. Wiggins Sur. ..... Coring 3,685 ft.

Tide Water Oil Co.'s No. 7-A Mrs. W. B. Thompson, 330 ft. from W line of lease and E offset to Betty K.'s No. 1 Maxwell, John Darley Sur. ..... Rig up.

SMITH COUNTY

Barney Carter's No. 1 T. O. Wright et al, 1,000 ft. from N line and 700 ft. from E line of survey, Juan Vargus Sur. ..... Waiting on cmt. to set 3,690 ft.

H. L. Hunt's No. 10-A Fair, 2,360 ft. from S line and 1,590 ft. from E line of survey, R. McAnulty Sur. .. Bldg. derrick.

Long Drilling Co.'s No. 3 G. A. Turner, D. W. Campbell Sur. ..... Derrick.

Alex McCutchin's No. 3 Hathaway, 880 ft. from N line and 1,320 ft. from W line of survey, D. Shaw Sur. .... Swabbing; T.D. 3,801 ft.

Pine Grove Oil Co.'s No. 4 S. S. Cooke, 2,780 ft. from N line and 7,440 ft. from E line of survey, Juan Vargus Sur. ..... Rig up.

Texarana Oil Co.'s No. 2 S. S. Cook, 3,980 ft. from N line and 7,580 ft. from E line of survey, J. Vargus Sur. ..... Rig up.

TITUS COUNTY

Garland Hallett et al's No. 1 W. W. Jackson, 330 ft. from S and E lines of 20-ac. tract, J. B. Hopkins Sur. ..... Spudded and S.D.

UPSHUR COUNTY

Conservative Oil Co.'s No. 6 C. M. and V. Victory, 2,410 ft. from E line and 330 ft. from S line of survey, E. A. J. Evans Sur. ..... Derrick.

Humble Oil & Refining Co.'s No. 21 J. D. Smith, 1,750 ft. from E line and 330 ft. from S line of survey, E. A. J. Evans Sur. ..... Rig up.

Perrin and Fell's No. 6 C. C. Landers, 370 ft. from N line and 3,700 ft. from W line of survey, G. W. Hooper Sur. ..... Drlg. 3,040 ft.

B. F. Phillips' No. 2 L. P. League, 490 ft. from N line and 1,000 ft. from W line of survey, H. F. Rodgers Sur. ..... Waiting on cmt. to set 3,572 ft.

Roesser and Pendleton's No. 2 E. C. Evers, 1,780 ft. from W line and 4,700 ft. from N line of survey, G. W. Hooper Sur. ..... Drlg. 3,190 ft.

VAN ZANDT COUNTY

Gulf Oil Co.'s No. 1 Gillentine, 150 ft. from S and E lines of E 4 acres of 42-ac. tract in Nacogdoches County School Land Sur. ..... Drlg. 1,245 ft.

Isaac et al's No. 1 E. T. Rhodes, 150 ft. from S and E lines of 32-ac. tract, William Page Sur. ..... Derrick.

Petroleum Pipe Line Co.'s No. 3 Mrs. S. McGee, 650 ft. from S line and 150 ft. from W line of Blk. No. 17, William Daniels Sur. ..... Rig up.

Ray Drilling Co.'s No. 1 J. W. Mallory, 1,150 ft. from S line and 150 ft. from W line of 217-ac. tract, John Walling Sur. ..... Derrick.

Reasonover et al's No. 1 D. T. Cole, 150 ft. from S and E lines of 45-ac. tract, Nacogdoches County School Land Sur. ..... Fishing for bailer 1,175 ft.

Van Oil Association's No. 1 Tankersley, 200 ft. from E and 1,000 ft. from S of farm, L. Landers Sur. ..... T.D. 810 ft.

Wildcat Operations in West Texas

(Continued from Page 40)

PECOS COUNTY

A. & M. Pet. Co.'s No. 1 University, 1,725 ft. from S line and 330 ft. from E line of Sec. 31, Blk. 16, University Sur. ..... Drlg. 1,340 ft.

Kimberlin et al's No. 1 B. D. Gregg, 2,486 ft. from NW and 150 ft. from NE, Sec. 101, Blk. 10, H.&G.N. Sur... Drlg. 1,276 ft.

REAGAN COUNTY

Big Lake Oil Co.'s No. 8-C University, 710 ft. from S and 2,410 ft. from E, Sec. 13, Blk. 2 ..... Flowed 2,072 bbls.; T.D. 8,800 ft.

Big Lake Oil Co.'s No. 9-C University, 2,410 ft. from N and 765 ft. from E, Sec. 12, Blk. 2 ... . Flowed 2,074 bbls.; T.D. 8,647 ft.

Big Lake Oil Co.'s No. 10-C University, 2,025 ft. from S and 375 ft. from W, Sec. 25, Blk. 9 ..... Drlg. 8,370 ft.

Big Lake Oil Co.'s No. 11-C University, 2,300 ft. from S line and 2,140 ft. from E line, Sec. 12, Blk. 2, University Sur. ..... Drlg. 6,398 ft.

Continental Oil Co.'s No. 7-B University, 1,980 ft. from N and 660 ft. from W, Sec. 36, Blk. 9 ..... Tested 115 bbls. of salt water per hour; slight show of oil.

Continental Oil Co.'s No. 8-B University, 1,300 ft. from S and 1,775 ft. from W, Sec. 36, Blk. 9 ..... T.D. 8,695 ft.; flowed 2,629 bbls. of fluid, 3 per cent salt water, and 2,400,000 ft. of gas.

J. P. Williams et al's No. 1 Scott, 1,650 ft. from N and 330 ft. from W, Sec. 179, Blk. 1, T.&P. Sur. ..... Drlg. 2,110 ft.

RUNNELS COUNTY

Dutton et al's No. 1 Dean, 5,475 ft. from NE and 1,048 ft. from NW in J. Heil Sur. No. 519 ..... S.O. 3,417-30 ft.; S.D. 3,600 ft

John Caster's No. 1 Hall, 330 ft. from S and W, Sec. 149, E.T.R.R. Sur. ..... Spudded

SCHLEICHER COUNTY

Wesner et al's No. 1 Nicks, 2,310 ft. from N and 2,302 ft. from E of Sec. 77, Blk. LL, T.C. Sur. ..... Drlg. 6,390 ft.

UPTON COUNTY

Gulf Prod. Co.'s No. 103 McElroy, 1,980 ft. from S and 660 ft. from W, Sec. 197, Blk. F, C.C.S.D.&R.G.N.G.... Drlg. 4,017 ft.

WARD COUNTY

George Bentley et al's No. 1 C. Bergman, 330 ft. from NE line and 2,310 ft. from NW lines of Sec. 36, Blk. 5, H.&T.C. Sur. ..... Fishing for tools; T.D. 2,647 ft.

George Bentley et al's No. 2 A. Emory, 1,650 ft. from NE line and 2,310 ft. from NW line of Sec. 36, Blk. 5, H.&T.C. Sur. ..... Drlg. 2,350 ft.

W. A. Black et al's No. 1 Ann B. Gordon, 990 ft. from NW and 330 ft. from NE lines of Sec. 6, Blk. 34, H.&T.C. Sur. ..... Running csg.; T.D. 2,394 ft.

Oppenauer Drlg. Co.'s No. 1 University, 330 ft. from N and 440 ft. from E of S half of Blk. 16 ..... Rig.

Gerber O. & G. Co.'s No. 1 Stubbs, 330 ft. from S 990 ft. from W, Sec. 9, Blk. 3, B.&B. Sur. ..... Cellar

Gulf Prod. Co.'s No. 16 Hutchings, 1,932 ft. from S and 1,650 ft. from W, Sec. 5, Blk. F ..... Swabbing and cleaning out; T.D 2,754 ft.

Gulf Prod. Co.'s No. 30 O'Brien, 990 ft. from S line and 660 ft. from W line of Sec. 6, Blk. F, G.&M.M.B.&A. Sur. ..... Bailing and cleaning out; T.D. 2,850 ft.; plugged back to 2,668 ft.

Wahlenmaier Pet. Corp.'s No. 1 Bergman, 2,310 ft. from NE line and 1,650 ft. from SE line of Sec. 36, H.&T.C. Sur. ..... Flowed 60 bbls. of oil in 24 hrs.; T.D. 2,212 ft.

WINKLER COUNTY

Colonial Oil Co.'s No. 2 State Scarborough, 990 ft. from W and 103¼ ft. N of the NE cor. of Sec. 1, School Blk. 77, located in Sec. 1, Blk. W.F. ..... Rig up.

Sid Richardson's No. 3 John Scally, 2,310 ft. from the N line and 330 ft. from the W line of Sec. 94, G.&M.M.B.&A. Sur. ..... Derrick.

An Appeal to Reason:

The petroleum industry can turn a predicted decline in consumption into a profitable increase during the next four months if it will only take advantage of a great opportunity.

Millions of automobile owners throughout the nation are anxious to visit the World's Fair at Chicago. They are flirting with the idea of driving their own cars. They naturally prefer to use the transportation facilities they own.

Oil companies have on their threshold this vast potential market for their products. Every branch of the petroleum industry would benefit substantially from the better price structure which would naturally result from such an increase in consumption.

It has been said often that the oil business has never made a real effort to create a market for its products. It now has its greatest opportunity to stimulate consumption during a period of four months of the best motoring season of

the year. Is it content to sit idly by and let this tremendous volume of business go to other means of transportion? Or will it take the action necessary to capitalize this opportunity with the resultant benefits? Executives of the different oil companies must decide quickly.

All that is necessary is to give the motorist the information he desires as to costs of trips, accommodations available, facilities, etc. The Oil and Gas Journal has compiled this information. It will gladly turn it over to oil companies or others interested for whatever use of it they desire to make.

There should be no delay in this matter. Millions right now are planning their vacations. Schools are dismissed for the summer. Giving approval to the movement to get these people to "Motor to the World's Fair" is not sufficient. Definite action on the part of the oil companies is absolutely necessary.

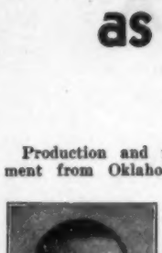
MOTOR-TO-CHICAGO NATIONAL CAMPAIGN

Care of The Oil and Gas Journal, Tulsa, Okla.

Big Increase in Oklahoma Crude Oil Production as Commission Takes Down Proration Bars

By W. A. SPINNEY
Staff Correspondent, Oklahoma Fields

Production and the crude oil movement from Oklahoma during the last week show an increase over the previous week of approximately 150,000 bbls. daily. The increase is believed to be due to the increase in the allowables of the Oklahoma City and to the taking of potential tests in the Greater Seminole area. The production of the Oklahoma City Field was near its peak of all time last week when it gauged 352,212 bbls. on June 23. This is due to the increase in crude oil prices which ended the sellers' strike in Oklahoma.



The daily average production of the principal pools in the State for the week ended June 24 was as follows:

Pool—	Week ending June 27	Previous week
Bowlegs	11,565	9,635
Bristow-Slick	16,800	16,000
Burbank	16,000	16,000
Carr City	9,260	8,475
Earlsboro	13,770	13,230
East Earlsboro	15,530	14,050
South Earlsboro	1,490	1,465
Little River	15,810	14,315
East Little River	1,415	1,165
Oklahoma City	220,745	120,620
Seminole City	10,540	9,515
Tatums	5,900	3,950
Total	350,425	216,490
Others	205,840	190,460
Total State	556,265	406,950

The second well in Keokuk Falls made a producer after being plugged back from the Wilcox sand. The well is Carter Oil Co. and others' No. 1 Canard Community, CSL SW SE, Section 35-11-6, northern Seminole County. It was drilled to a total depth of 4,488 feet where water rose 3,500 feet in the hole. It was then plugged back to the Misener sand and Hunton lime at 4,065-4,223 feet, where it made 1,615 bbls. of oil and 385 bbls. of water in 24 hours.

Allowables Given Big Increase

The Oklahoma Corporation Commission increased the daily allowable of three pools in the State during the week, for the remainder of the month of June, to meet the higher demand for crude oil. The increase amounted to 77,091 bbls. daily.

The Wilcox sand zone in the Oklahoma City Field was increased 43,791 bbls. a day to a total of 150,000 bbls. daily, retroactive to June 1.

Class "B" areas in Greater Seminole were increased 30,300 bbls. daily to a total of 140,000 bbls. daily for the last 10 days in June and the Tatums Field in Carter County, in the southern part of the State, was increased 3,000 bbls. daily to a total of 8,500 bbls. for the last 10 days in June.

Announcement of the increases was made by the Corporation Commission after a day's hearing with some interesting sidelights. James M. Veasey, council for the Carter Oil Co., led the fight to higher allowables in the Greater Seminole area, and said that his company had been forced to draw on reserves by the producers' strike in the Oklahoma City Field.

Paul Walker, chairman of the commission, opposed to the increase in allowables, sustained objection after objection, when W. L. Murphy, attorney for the Wilcox Oil & Gas Co. sought to question witnesses about their purchases in the Oklahoma City Field.

Paul Walker contended that the hearing was on Greater Seminole only and that Oklahoma City affairs should not be considered. S. W. Hayes, attorney for a group of Oklahoma City producers, sought to block all testimony bearing on the Oklahoma City Field and at the close of the hearing pleaded for a continuance of the hearing until June 27, when the statewide hearing of the market demand will be held.

J. C. Denton, council for the Mid-Continent Petroleum Corp., warned the commission that it was not acting under the provisions of the new proration law in attempting to restrict production in face of a higher demand, and at a recess the commissioners considered the evidence. The recess lasted for approximately 25 minutes, and at the expiration of the time E. R. Hughes made a motion for the increases, including Oklahoma City which was seconded by Jack Walton. Paul Walker dissented. E. R. Hughes explained that in arriving at the increases in the allowables the commission had considered all of the petitions now pending before the commission for increased allowables. He also said the Wilcox sand allowable was based on nominations made at the May 26 hearing and that the Tatums Field increase included 1,000 bbls. petitioned a month ago by the Rock Island Refining Co. of Duncan.

Drawing on Stocks

Representatives of the purchasers in the Class "B" pools in the State testified that their companies had been forced to withdraw crude oil from storage, that their stocks had got too low for safety in operation, and that refinery demands throughout the country had been increased. Other than a small amount of working stocks, the representatives said, the crude oil was not to be put into storage.

This increase in the allowables was believed to be a direct blow to the Oklahoma City operators who had during the last few weeks held in force a strike against selling crude oil at the low market price before the recent increases in crude oil prices. These operators wanted to prevent a higher allowable at this time in the state fields with the view of conserving the supply of crude oil pending a higher crude oil price.

The Wilcox Oil & Gas Co. petitioned the commission for 7,000 bbls. of oil a day from the Wilcox sand zone in the Oklahoma City Field and the Petroleum Pipe Line Co. and others asked for an increase of 7,500 bbls. a day.

At the hearing on June 21, before the commission, the Champlin Refining Co. charged that potentials of wells in the Greater Seminole area were not being taken equally and that the orders of the commission were not being followed in gauging the wells in that area.

J. J. O'Laughlin, deputy umpire in charge of the taking of potentials in the Greater Seminole area, testified that his men were witnessing the gauges, and that they were not witnessing the manner in which the wells were produced. The wells are permitted to flow 48 hours; some are flowing naturally, others are being pumped, while still others are on the air-gas lift. The deputy umpire said he was not concerned with the method of producing the wells.

The attorney for the Champlin Refining Co. asked O'Laughlin how many "dead" wells there were in the Greater Seminole area, and he said that he did not know anything about them. He then explained that the potentials were being taken on a lease basis instead of a per well basis. Gauging on the per lease basis would not permit the commission or the umpire to know the condition of all the wells, the attorney said. Harry Glasser, attorney for Champlin Refining Co., said that the State Supreme Court decision in the Wilcox case held that lease potentials were inequitable.

Deputy Umpire O'Laughlin said that his men were expecting to complete the taking of potentials in the Greater Seminole area this week, with the exception of a number of wells that could not be tested at the regular scheduled time.

Shell Petition Opposed

The Shell Petroleum Corp.'s petition for increased allowables in the Wentz Field near Lucien, in Noble County, was continued until the June 27 meeting. The company petitioned for 12,000 bbls. a day which was the first nomination for this new field. The attorney for the Oklahoma City operators asked for the continuance of the case, and at that time he expects to have witness to show that the Shell Petroleum Corp. can obtain its needed crude oil supply from the Oklahoma City Field and to also show that

Wildcat Operations in Oklahoma

Northern Oklahoma

ALFALFA COUNTY

Company, farm and location— Remarks:
Acre et al's No. 1 Acre, C SW NE Sec. 14-24-11w.....O.W.D.D.; drlg. 5,570 ft.

BECKHAM COUNTY

Pattee Royalty Co.'s No. 1 Goose Tree, SW SE SW SE Sec. 32-10-23w .....Drlg. 3,004 ft.

CADDO COUNTY

Denver P. & R. Co.'s No. 1 Noe, NW SW SW Sec. 34-10-10w .....Drlg. 9,190 ft.
W. L. Miller's No. 1 Gardner, SE SW Sec. 26-6-10w....Rig.

COAL COUNTY

Dod'd & Burton's No. 1 Grigsby, NW SE NE Sec. 35-1-8..Oil show 1,858-67 ft; C.O.
Funk & Russell's No. 1 Miller, SE NE Sec. 10-2-8 .....Fishing 2,750 ft.

GARFIELD COUNTY

Continental Oil Co.'s No. 1 Thompson, NW SW SW Sec. 7-24-4w .....Drlg. 6,313 ft.
J. H. Lewis' No. 1 Clark, C NW NW Sec. 34-21-6w .....Rig.

HUGHES COUNTY

Dixie-Lee Oil Co.'s No. 1 Taylor, C NW Sec. 27-5-10.....Drlg. 350 ft.
Gilcrease Oil Co.'s No. 1 Thompson, NW SE Sec. 34-7-8..Drlg. 340 ft.
Pioneer Pet. Co.'s No. 1 Brock, SE cor. Sec. 28-5-11 .....Rig.
Redwine et al's No. 1 Badger, C N half SW SW Sec. 4-6-11 .....Drlg. 330 ft.

KAY COUNTY

Blauner et al's No. 1 Maple, NE NW SE Sec. 20-27-4....Drlg. 660 ft.

KIOWA COUNTY

McWhirter Bros.' No. 1 Kline, SE NW Sec. 5-6-16w.....Adb. 350 ft.
Christian's No. 1 Jones, NE NW Sec. 8-7-15w .....Drlg. 1,744 ft.
McWhirter et al's No. 1 Vanderneck, NE NW Sec. 3-7-19w (O.W.D.D.) .....Drlg. 2,155 ft.

LINCOLN COUNTY

Magnolia Pet. Co.'s No. 1 Wagoner, SW SE Sec. 2-14-3 ..Drlg. 2,220 ft.

LOGAN COUNTY

Gypsy Oil Co.'s No. 1 McConnell, C NE SE Sec. 23-17-4w..Drlg. 5,935 ft.
Shell Pet. Corp.'s No. 1 Faulkner, C SE NW Sec. 11-16-4w Drlg. 6,465 ft.

MURRAY COUNTY

A. E. Harden's No. 1 Sadler, NE Sec. 19-1-3.....Rig.

MUSKOGEE COUNTY

J. S. Routt et al's No. 1 Escoe, CWL SE NE Sec. 17-13-17.Machine.

NOBLE COUNTY

Sinclair Prairie's No. 1 Jerome, SW cor. Sec. 15-20-2w..Drlg. Wilcox sand 5,356 ft.

OKLAHOMA COUNTY

Mid-Continental Oil Co.'s No. 1 Edwards, C SE SE Sec. 19-11-1 .....W.O.C.S. 260 ft.
F. Russell's No. 1 Heapley, SW NW NE Sec. 23-12-3w..Rig.

OKFUSKEE COUNTY

Natl. Investors' No. 1 Billy, SE NW NW Sec. 29-12-9....Drlg. 4,168 ft.

PAYNE COUNTY

Kemp & Nunnelee's No. 1 Crane, SW SE SW Sec. 10-17-6 Drlg. 1,190 ft.
O. N. Maines et al's No. 1 Scheidberg, NW SW NW Sec. 27-22-6 .....Wilcox sand 3,114-38 ft.; wtr.

PITTSBURG COUNTY

Moffett & Hall's No. 1 Jones, C NE NW Sec. 14-8-14 ..Drlg. 2,600 ft.

PONTOTOC COUNTY

Brydia et al's No. 1 Thomas, SW NE Sec. 20-2-7.....Rig.
Gilbert's No. 1 Starritt, NW SE Sec. 28-4-6..... Drlg. 950 ft.
Choctaw O. & G. Co.'s No. 1 Thompson, SW NE SW Sec. 1-1-7 .....Drlg. 1,150 ft.
W. E. McGraw's No. 1 Mayhue, NE Sec. 19-3-6.....Drlg. 1,150 ft.
Williams' No. 1 Kroth, NE SE Sec. 32-3-4.....Drlg. 1,730 ft.
Wirrick's No. 1 Lee, SE SW Sec. 29-2-7 .....Drlg. 1,565 ft.

POTTAWATOMIE COUNTY

Payne Drlg. Co.'s No. 1 Lovelace, NW SW NW Sec. 27-6-4 W.O.C.S. 3,623 ft.

SEMINOLE COUNTY

Stewart & Egan's No. 1 Sanderson, NE SW Sec. 27-6-5..Rig.
Pilmire's No. 1 Bowlegs, SE NE SW Sec. 1-7-7 ..... C.O. 440 ft.
Armstrong et al's No. 1 Diamond, NE SE SW Sec. 3-6-7..Spudding.
Donnelly et al's No. 1 Shepard, SE NE Sec. 4-8-8.....Sand 1,395-1,405 ft; wtr.; fishing 1,640 ft.

Southern Oklahoma

ATOKA COUNTY

Blake's No. 1 Galbreath, SW NE SE Sec. 5-1-15 .....Drlg. 1,248 ft.
L. E. Stewart et al's No. 1 Stewart, SE SE Sec. 2-4s-10. Drlg. 1,195 ft.
Wacker et al's No. 1 Baskett, SW NE NW Sec. 18-1-15..Drlg. 325 ft.

CARTER COUNTY

P. Turner's No. 1 Dove, NE NW SE Sec. 3-5-1.....Rig.

JEFFERSON COUNTY

Abbott et al's No. 1 Simmons, NW cor. Sec. 14-6s-6.....Drlg. 815 ft.
Hobbs' No. 1 Barnett, NE SE SW Sec. 33-5-5w.....Drlg. 2,190 ft.
Wakefield's No. 1 Kelly, NW SE Sec. 1-5-5w.....Drlg. 650 ft.

STEPHENS COUNTY

Doyle Oil Co.'s No. 1 Cunningham, SE NE NW Sec. 4-1-4w .....Drlg. 2,500 ft.
Navajo O. & G. Co.'s No. 1 Martin, SE SW NW Sec. 18-1-5w .....Drlg. 4,321 ft.
Sledge et al's No. 1 Worley, SW SE SW Sec. 32-2-7w....Drlg. 365 ft.

TILLMAN COUNTY

Emenheiser et al's No. 1 Pace, C SW Sec. 3-4s-17w.....Drlg. 3,000 ft.
Gypsy Oil Co.'s No. 1 Pitcher, NW Sec. 16-4s-15w ..... Drlg. 2,784 ft.
Gypsy Oil Co.'s No. 1 Co. Do. Pony, NW cor. Sec. 27-4s-15w .....Drlg. 1,670 ft.

there is no need to remove the wildcat restrictions placed in the Wentz Pool.

There are now five producing wells in the Wentz Pool, with a combined potential of approximately 18,000 bbls. a day. To grant the new allowable asked would permit production of 66 per cent of the wells' capacity. This part of the situation brought objections from the Phillips Petroleum Co.

The Shell Petroleum Corp. expects to complete a 6-inch pipe line into the Wentz Pool area by the first of July and witness for the company said that it needed additional oil to meet refinery demands.

A further increase in the allowable production of the Oklahoma City Field was expected when the operators with wells in the Simpson sand zone of the field were preparing to ask the commission for an increase in the allowable to place the Simpson sand production on a parity nearer with the Wilcox sand zone.

For the first time in more than a month the purchasing companies in the Oklahoma City Field were obtaining all the oil they wanted. A number of new pipe line connections were being made by the major purchasers.

Wildcats High on Structure

Two wildcat tests in Logan County are believed to be running high on structure. The Shell Petroleum Corp.'s No. 1 Faulkner, C SE NW Section 11-15-4w, found a slight showing of oil in the Simpson dolomite in cores from 6,410 to 6,468 feet. It was drilling deeper.

The other wildcat test is Gypsy Oil Co. and others' No. 1 Miller, C NE SE Section 28-17-4w, which was expecting to find the Viola lime at any time. It was drilling at 5,935 feet in Sylvan shale.

In Southern Fields

In southern Oklahoma the wildcat test of Navajo Oil & Gas Co. and others, No. 1 Martin, SE cor. SW NW Section 18-1-5w, Stephens County, was drilled to a total depth of 4,815 feet, where the drill pipe stuck on account of cavings in the hole. At its present total depth the well showed oil and water in a core.

George L. Pace's No. 2 Gilworth, SE cor. NW NW Section 2-2s-8w, in Stephens County, was preparing to drill cement plugs and test a showing of oil and gas at 1,905-29 feet.

Doyle Oil & Gas Co.'s No. 1 Cunningham, SE cor. NE NW Section 4-1-6w, Stephens County, was shut down at the contract depth of 2,500 feet, and a deal is pending with other operators to take over the well and acreage and drill the test deeper.

In the Tatums fields, Carter County, Lloyd Oil Co.'s No. 1 Majors, SE cor. NW SE Section 25-1s-3w, swabbed 405 bbls. of oil in 14 hours from sand series at 2,343-2,644 feet.

K. D. Drilling Co.'s No. 3 Burton, NW cor. SW Section 30-1s-2w, swabbed 287 bbls. of oil in 22 hours from sand at 2,363-2,464 feet. It was then treated with acid and the first hour it made 53 bbls. of oil and the second 63 bbls.

An interesting wildcat in southern Oklahoma is Carter Oil Co.'s No. 1 Perkins, SE cor. NW SW Section 3-1s-3w, northwest of Tatums Field. It cored several showings of oil between 2,031 feet and 2,095 feet. It was drilling deeper at 2,604 feet on the last report.

John B. Nichols and others' No. 1 Rigney, NE cor. NW SE Section 12-5-9w, Grady County, was plugged back to 3,396-3,448 feet, where it will be given a shot. It has had a number of showings of oil but the water encroachment ruined most of them.

Denver Producing & Refining Co.'s No. 1 Noe, NW cor. SW SW Section 34-10-10w, a wildcat test in Caddo County, was drilling at 9,250 feet on the last report. It is the deepest drilling test in the State at this time.

The South St. Louis area of Pottawatomie County was interesting since the extension well of the Amerada Petroleum Corp. and others, No. 1 Harrison, NW cor. SW Section 33-7-4, was opened for a production test during the week, after being shut in on account of proration. It made 3,161 bbls. of oil the first 18 hours and then flowed 2,177 bbls. of oil in 20 hours after which it quit flowing. It was being swabbed in an attempt to bring it back to flowing.

The same operator's No. 1 Rice, SE cor. NE Section 32-7-4, found oil in the Viola lime at 4,160 feet, which rose 1,500 feet in the hole. A swabbing test of the oil showing was to be made.

Mid-Continent Petroleum Corp.'s No. 1 Brandenberg, SW cor. NE Section 33-7-4, cored the Hunton lime with a showing of oil at 3,804-21 feet. It was drilling deeper at 3,822 feet.

Stewart and Clark's No. 2 Brister, NE of Section 28-7-4, recently completed for 300 bbls. a day, was treated with acid in the Simpson dolomite at a total depth of 4,133 feet and flowed 1,635 bbls. of oil in 16 hours.

Vaughan and others' No. 1 Lawther, NW cor. SE SW Section 33-7-4, is a new location.

In the West Konawa area of Pottawatomie County, Gypsy Oil Co.'s No. 2 Gray, NW cor. SW Section 26-6-4, was estimated at 600 bbls. a day from the Simpson sand at 3,424-41 feet. A swabbing test will be made of the oil showing.

Magnolia Petroleum Co.'s No. 1 West, SE cor. NE Section 26-6-4, flowed 568 bbls. of oil in 24 hours from the pay horizon at 3,365-79 feet.

Seminole's Potential

The potential production of the Greater Seminole area is expected to reach 225,000 bbls. per day on the present gauges. The average decline of the potential production of the 12 pools, on partial returns is 26 per cent from the previous gauges, it was said by state proration officers now completing the tests.

The wells are being produced for 48 hours and the figures are compared to the 10-day flow test made last November by Ray M. Collins, then state umpire. The potential production of the area has been declining at the rate of 2 per cent a month.

Two of the pools show increases at this time, but both are incomplete. The Allen Field had a potential of 18,615 bbls. a day, an increase of 3.60 per cent since last November, and the North Seminole Field has a total potential of 3,405 bbls. a day, an increase of 61.30 per cent.

The potentials of the other fields in the area also showing their decline is as follows:

Pool—	Potential	Per cent decline
Bowlegs	18,061	11 30
Carr City	13,389	31.30
Earlsboro	12,286	22.50
East Earlsboro	16,373	1.00
South Earlsboro	2,929	14 70
Little River	29,758	24 00
East Little River	1,710	32 20
Konawa	5,136	34 90
Searight	5,100	5.70
Saskawa	1,760	34 43
West Asher	3,391	59 15
West Seminole	10,405	43.40

Engineers estimate that at the present rate of withdrawals from the pools, by the end of the year these pools will be making only their allowables. On the other hand, the reconditioning and redrilling of wells in the field is expected to offset the decline to some extent.

The Oklahoma Corporation Commission expects to issue an order as soon as possible on the Greater Seminole area. This will be the first general order issued in the Greater Seminole area under the new proration law.

Atoka County

Kelly Spring's No. 3 So. Tr., NW cor. SW Section 3-1-14, was abandoned at 275 feet.

Carter County

Lloyd Oil Co.'s No. 2 Majors, C N L NE SW SE Section 25-1-3w, is a location. Same company's No. 1 Majors, SE cor. NW SE Section 25-1-3w, made 405 bbls. from 2,627-44 feet. K. D. Oil Co.'s No. 3 Burton, NW cor. SW Section 30-1-2w, made 287 bbls. from 2,417-64 feet.

Cotton County

Paul Olds' No. 1 Wilson, NW cor. Section 6-2-9w, was abandoned at 2,258 feet.

Creek County

Merkle and Frame's No. 1 Cruel, NW cor. SW Section 31-17-12, is a rig. L. B. Jackson's No. 5 Wells, NW cor. SW NW Section 26-18-8, is a machine. Sample and Mann's No. 1 Frank, C S L SE SE Section 34-19-10, was spudding. F. O. Akin and others' No. 2 Tiger, SW cor. SE NE Section 34-18-8, is a rig. Same company's No. 1 Tiger, NE cor. SE NE Section 34-18-8, made 100 bbls. from 1,251-86 feet. Creokla Oil Co.'s No. 1 Wa-Ta-She, C S L NW NE Section 4-17-10, made 35 bbls. from 1,725-30 feet. W. G. Banks, C E L SE SW Section 30-17-12, was abandoned at 2,652 feet. S. W. Anthony's No. 2 Warlecy, SW cor. SE Section 4-16-12, was abandoned at 2,077 feet.

Garfield County

J. H. Lewis and others' No. 1 Clark, C NW NW Section 34-21-6w, is a rig.

Grady County

J. Ray's No. 2 Johnson, SW cor. NE NW Section 6-3-5w, was abandoned at 2,832 feet.

Hughes County

Troup and O'Connor's No. 2 Haskett, NW cor. SE SE Section 15-7-8, is a machine. George Orr's No. 1 Meadows, SW cor. NE NW Section 12-8-8, made 8 bbls. from 3,435-46 feet.

Kiowa County

McWhirter Brothers' No. 1 Kline, SE cor. NW Section 5-6-16w, was abandoned at 830 feet.

Logan County

J. S. Cosden's No. 2 Gardner, NW cor. NE NW Section 31-19-4w (old well drilled deeper), total depth 5,965 feet, cleaning out.

Muskogee County

Mack Drilling Co.'s No. 1 Barnett, C NW NW Section 35-16-15, is a rig. Same company's No. 1 Ashbury, C NE NW Section 33-16-15, was abandoned at 1,568 feet.

Oklahoma County

I.T.I.O. Co.'s No. 2 Wisel, NE cor. SW SE Section 26-11-3w, is a location. Phillips Petroleum Co.'s No. 2 Holstein, C SE NE Section 22-11-3w, is a location.

Okmulgee County

Baker and others' No. 2 Haynes, C E L SE SW Section 11-13-12, is a rig. J. E. Hennessy's No. 6 Rowe, SE cor. NE SW Section 8-15-14 (old well drilled deeper), total depth 1,780 feet, cleaning out.

Okfuskee County

McBrayer and Rapp's No. 2 Barnett, SE SW NW Section 25-11-11, is a rig. Burke-Grein' No. 1 Brown, C N half SE NE Section 20-10-9, made 2,500,000 feet of gas from 2,742 feet.

Osage County

Continental Oil Co.'s No. 2, C SW SE Section 21-24-7, is a rig. I.T.I.O. Co.'s No. 1, C NE NW Section 8-25-6, is a location. National Refining Co.'s No. 1, NW cor. SW NW Section 12-24-7, made 25 bbls. from 2,890-2,920 feet. Bay Oil Co.'s No. 1, SE cor. SW Section 25-24-7, made 16 bbls. from 1,065-85 feet.

Pottawatomie County

Stewart and Egan's No. 1 Sanderson, NE cor. SW Section 27-6-3, is a rig. Vaughn and others' No. 1 Louther, NW cor. NE SW Section 33-7-4, is a rig. Sinclair Prairie Oil Co.'s No. 1 Copeland, NW cor. Section 5-6-5, made 190 bbls. from 4,040-4,115 feet.

Seminole County

Amerada Petroleum Corp.'s No. 9 Chase, SW cor. NE Section 29-9-6, is a rig. Stanolind Oil & Gas Co. and others' No. 1 Reed, SW cor. Section 25-6-7, is a location. Spears Drilling Co.'s No. 1

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Carbon Dioxide Makes the Welding Job Safe Without Steaming or Dismantling

Through utilization of carbon dioxide the workman of the C. C. Forrester Welding Co., Tulsa, shown in the accompanying illustration is repairing a leak in a gasoline truck of the Marathon Oil Co. without the necessity of first steaming the interior of the tank to clear it of explosive hydrocarbon gases. The job consumed about 15 minutes and left the surface of the tank with only slight defacement, easily remedied by a few strokes of a paint brush.

But for introduction of carbon dioxide into the tank, thus producing a nonexplosive mixture, it would have been necessary first to drain the tank and then carefully remove every vestige of hydrocarbon gases by the application of hot steam. This procedure probably would have ruined the paint and lettering on the tank, necessitating another paint job. In addition such welding repairs often necessitate removal of the tank from the truck, thus further lengthening the time during which the truck must be out of service.

This use of carbon dioxide to remove danger of explosion in welding in the presence of hydrocarbon gases is applicable not only to gasoline trucks but to any closed vessel which has contained crude oil, gasoline or other petroleum products.

Elimination of explosion hazards in this kind of welding jobs results from the fact that carbon dioxide, which is made in both solid and liquid form, becomes inert gas with a specific gravity of about 1.52 as it vaporizes. It therefore is heavier than hydrocarbon gases or air. If mixed with hydrocarbon gases in the proportion of one part carbon dioxide to four of hydrocarbon gases, the mixture is nonexplosive. As a precautionary measure it is usual to make a 40 per cent mixture. A Hayes analyzer is used to ascertain the percentage of carbon dioxide gas and hydrocarbon gases just as in making a test for the presence of oxygen in a gas.

The method can be used in welding leaking gate valves on pipe lines or vessels to be welded along pipe lines, in the oil refinery or in the field.

Hollow Pool Promised a Southwest Extension; Demand for Kansas Crude Oil Increasing

By W. A. SPINNEY
Staff Correspondent, Kansas Fields

Increasing demand for crude oil in Kansas, and the possibility of an extension of the Hollow Pool, in Harvey County, 1½ miles southwesterly, were the outstanding features of field operations in Kansas the past week.

State Umpire L. R. Pickrell announces that several purchasers have signified their intentions of increasing their nominations in the Ritz-Canton-Decker, Mabee and Hollow Pools and perhaps in other prorated areas. The exact amount of the increases was not given but were expected to be made known by June 25.

The Corporation Commission issued an order effective June 25 giving producers that withheld their crude oil allowables permission to make up the back allowables, and that additional stocks should not be accumulated. The final date upon which producers will be permitted to make up all of the accumulated shortage will be announced later. The increased nominations in the prorated areas may be accepted at this time to assist in the orderly and equitable marketing of the accumulated shortages.

Production by Pools

The daily production of the principal pools in Kansas for the week ending June 24 was as follows:

Pool—	Week ending June 24	Previous week
Hollow	5,045	6,505
Ritz-Canton	17,560	16,050
Voshell	6,105	5,765
Sedgwick County	9,575	9,495
Mabee (Nikkel)	8,275	8,310
Ellsworth County	1,005	984
Barton County	625	660
Rice County	2,960	2,960
Reno County	1,175	1,225
Stafford County	190	195
Total	55,515	53,149
Others	54,985	52,951
Total state	110,500	106,100

One of the interesting wells in the territory just west and south of the Hollow Pool is the test of Frank Hollow and others, No. 1 Heidrecht, SW cor. SE NE, Section 36-22-4w, Reno County, which was making 11,000,000 feet of gas a day, and oil estimated at 25 to 50 bbls. a day, from the chat at 3,312-66 feet. The first oil was found at 3,317-25 feet, and after drilling to 3,366 feet the hole was bailed down and gauged. This test is located about 1½ miles south and west of the nearest production in the Hollow Field. It will open a new pool a half mile west of the Reno County line.

A new wildcat location was announced about 15 miles southwest of Hutchinson, in Reno County. It was Duwe & Dustin's No. 1 Evans, C NE NW, Section 25-24-8w.

Manning and Terry's No. 1 Goering, NW cor. NE, Section 1-23-4w, Reno County, swabbed 75 bbls. of oil with a showing of water in nine hours at a total depth of 3,353 feet. It was drilled deeper to a total depth of 3,356 feet with no increase in the oil showing. It will be given a treatment with acid in an attempt to increase the oil.

Derby Oil Co.'s No. 1 Stanley, in Section 35-23-4w, found 2,000,000 feet of gas per day from a total depth of 3,300 feet. It was drilled deeper to a total depth of 3,310 feet but there was no increase in the gas.

Olson Oil Co. and Shell Petroleum Corp.'s No. 1 Stanley, in Section 13-23-4w, Reno County, found a showing of oil in the chat at 3,335 feet and the oil increased with deeper drilling at 3,379 feet where it made one flow of oil into the slush pits. No estimate was made of the production and tankage will be erected before a gauge can be made.

The Olson Oil Co. and Shell Petroleum Corp.'s No. 1 Querfeld, C SW SE, Section 27-23-4w, is a location.

Good Wells in Hollow Pool

In the Hollow Pool, in Harvey County, the third Wilcox sand well in that field and the first in the north end, and which extended Wilcox sand production about 2 miles to the north, was the Derby Oil Co.'s No. 2 Schmidt, in Section 17-22-3w. It flowed 1,274 bbls. of oil in 24 hours on gas lift from a total depth of 3,378 feet and is still in sand. The well was tubed with 3-inch pipe. Gas from the same company's No. 1 Schmidt was introduced into the hole between the casing and the tubing and the oil flowed out through the tubing. The gas was gauged at 2,500,000 feet a day. The gas-oil ratio was 1,800 feet of gas per barrel of oil.

Skelly Oil Co.'s No. 2 Schmidt, in Section 17-22-3w, found the top of the Hunton lime at 3,472 feet and the top of the pay horizon at 3,530 feet. It swabbed 2½ bbls. of oil an hour from the pay at 3,453-69 feet. The total depth of the well is 3,531 feet in the Hunton lime.

Sinclair Prairie Oil Co.'s No. 1 Neufeldt, in Section 18-22-3w, in the Hollow Field, flowed 245 bbls. of oil in 24 hours from the chat through a bradenhead. It swabbed 165 bbls. of oil in eight hours from the Hunton lime at 3,442-58 feet.

Mid-Kansas Oil & Gas Co.'s No. 3 Duerkson, in Section 19-22-3w, in the south end of the Hollow Pool, was drilling in the Misener sand at 3,421 feet.

Continental Oil Co.'s No. 1 Pauls, in Section 17-22-3w, was showing oil of 32 gravity from the Hunton lime at a total depth of 3,506 feet. It is the first well in the Hollow Pool to show oil from the Hunton lime of that low gravity.

Producers & Refiners Corp.'s No. 3 Martens, in Section 19-22-3w, on the same lease with the discovery Wilcox sand well in the Hollow Pool, was drilling at 1,200 feet.

Best Well of the Year

One of the largest wells of the year in the Ritz-Canton Pool, in McPherson County, was Lario Oil & Gas Co. and others' No. 4 Gratton, in Section 24-19-2w, which pumped 1,576 bbls. of oil in 48 hours from the Viola lime at a total depth of 3,400 feet, giving the well a 24-hour potential of 788 bbls. Youker and others' No. 4 Gratton, in Section 24-19-2w, pumped 274 bbls. of oil in 48 hours giving the well a 24-hour potential of 137 bbls. a day from the chat formation at a total depth of 3,002 feet.

O. K. Detrick and Shell Petroleum Corp.'s No. 1 Whittall, in Section 29-19-1w, on the east side of the field, is estimated at 400 bbls. a day from the chat formation at 2,975-83 feet.

Dickey Oil Co. and Shell Petroleum Corp.'s No. 1 Williams, in Section 26-19-2w, pumped 248 bbls. in 16 hours from the Viola lime at a total depth of 3,379 feet. The well will be given a treatment with acid.

Rosenthal and others' No. 1 Knudson, in Section 23-19-2w, pumped 225 bbls. of oil and 98 bbls. of water in 24 hours from the pay at a total depth of 3,380 feet.

Helmerick and Payne's No. 1 Russell, in Section 23-19-2w, was treated with acid at a total depth of 664 feet. One hundred and twenty gallons of acid was used in an attempt to increase the showing of gas which was first estimated at 50,000 feet a day.

Midwestern Fields Active

Activity continues in the northwestern part of Harvey County and is spreading into Reno County. At this time there are a half dozen tests under way in Reno County, that are being drilled and about twice as many over the line in Harvey County. There are three tests being drilled in Rice County. The advance in crude oil prices is expected to act as stimulant to the drilling activity in the State.

About two years ago the central western part of the State was believed to be ripe for a large drilling campaign but after wells had been completed in Barton, Ellsworth, Rice, Rush and Stafford Counties in the Siliceous lime these areas remained a long distance from transportation facilities and only a small allowable was granted to new wells. Sixty-four wells have been completed in these areas, with a combined potential production of 41,236 bbls. per day.

The older areas of the State are still supplying the pipe line and purchasing companies with a considerable part of their daily needs. The Siliceous lime area in the central western part of the State compares with the Granite Ridge areas in Butler County, which has been a steady producing area for a number of years.

Butler County has a number of producing horizons which occur locally. A shallow sand produces oil at 550 feet and another at 660 feet. The producing horizon at 1,700 feet which is near the top of the Lansing formation has yielded wells as high as 500 bbls. a day initially. At 2,000 feet an oil sand is found near the top of the Kansas City formation. The main producing horizon is found around 2,500 feet.

Gas sands are found in Butler County at 900 feet, 1,125 feet, 1,475 feet. Wells in these sands have had an initial open flow of 9,000,000 feet of gas a day with a rock pressure of 400 pounds.

Barton County

Helmerich and Payne's No. 1 Everlight, C SW SE Section 13-18-13w, is a location. Stanolind Oil & Gas Co.'s No. 1 Gerlash, C SE SW Section 9-20-11w, is a location. Stanolind Oil & Gas Co.'s No. 1 Hauser, C NW NE Section 16-20-11w, is a location.

Butler County

Hartman and Shell Petroleum Corp.'s No. 1 McCann, SE cor. SW NW Section 7-25-3, is a rig.

Chase County

Polhamus and others' No. 7 Leedy, NW cor. NE NW Section 36-22-9, is a rig.

Coffey County

Ackman and others' No. 2, SW cor. NW SW Section 14-22-13, made 30 bbls. from 1,863-71 feet.

Greenwood County

Sheedy and others' No. 1 Sawbaugh, SW cor. NE Section 1-23-9, was abandoned at 2,606 feet. Schull Drilling Co.'s No. 1 Allis, SW cor. SE NW Section 17-24-23, made 25 bbls. from 1,585-1,601 feet. Plains Petroleum Co.'s No. 5 Terberger, NW cor. NE NE Section 11-25-8, is a location.

Harvey County

Sinclair Prairie Oil Co.'s No. 1 B. Neufeldt, NE cor. Section 18-22-3w, is a rig. Producers & Refiners Corp.'s No. 2 Martens made 1,440 bbls. from 3,508-14 feet.

McPherson County

Dickey Oil Co. and others' No. 2 Williams, SE cor. NW Section 26-19-2w, an old well drilling deeper, total depth

(Continued on Page 58)

Wildcat Operations in Kansas

(Descriptions are East unless marked otherwise)

BARTON COUNTY

Company, farm and location— Remarks:
Rankin et al's No. 1 Soceg, C SW NE Sec. 24-18-12w...Drlg. 3,504 ft.

BUTLER COUNTY

Marylyn Oil Co.'s No. 1 Harsh, NE SW Sec. 33-23-8 ....Machine.

COWLEY COUNTY

E. Yarnell's No. 1 Speer, SE NE NE Sec. 31-32-6 .....Drlg. 1,205 ft.

ELK COUNTY

Austin et al's No. 1 Wade, C NE NE Sec. 9-29-12 .....Drlg. 1,860 ft.

ELLSWORTH COUNTY

Rex Etnyre's No. 1 Arnsman, C SW SW Sec. 16-15-7w..Rig.

GRAHAM COUNTY

Schleimeyer et al's No. 1 Smith, SE Sec. 24-8-25w.....Fishing 4,180 ft.

GREENWOOD COUNTY

Chas. Reser et al's No. 1 Hull, NW SE Sec. 8-26-9 .....Drlg. 1,950 ft.
Reeser & Chriswell's No. 1 Wright, C SW SW Sec. 28-25-15 .....Spudding.
Wright's No. 1 Madren, SW SE SW Sec. 29-22-12 .....Machine.

KINGMAN COUNTY

Garden et al's No. 1 Unknown. Sec. 11-27-7w ..... Drlg. 1,690 ft.

McPHERSON COUNTY

Clum et al's No. 1 Nelson, C NE NW Sec. 12-18-4w.....Drlg. 2,900 ft.
Sever and Hessman's No. a Scrag, S½ SE Sec. 22-19-4w..Rig on ground.
Gaume & Maxwell's No. 1 Goering, NE SE SW Sec. 24-22-3w .....Rig.
Investors Mineral Dev. Co.'s No. 1 Kaufman, SE Sec. 35-21-3w .....Rig.
Roth & Parout's No. 1 Swanson, NE SW NE Sec. 13-19-3w .....Rig.

PRATT COUNTY

Minnescah O. & G. Co.'s No. 1 Hardesty, SW SE SE Sec. 26-27-11w .....Drlg. 4,427 ft.
Roth & Parout's No. 1 Yoder, C NW NW Sec. 15-24-5w..C.O. 325 ft.

RICE COUNTY

Langston et al's No. 1 Wells, NE SE Sec. 4-20-9w.....Drlg. 2,475 ft.

ROOKS COUNTY

Kruger's No. 1 Rathburn, SE NW SW Sec. 14-9-16w.....Rig.

SALINE COUNTY

Dieter, Warren and Lario O. & G. Co.'s No. 1 Fulton, SW NW Sec. 14-14-3w .....Drlg. 3,260 ft.
Deal O. & G. Co.'s No. 1 Tompkins, SW cor. Sec. 26-23-1. Fishing 2,690 ft.

SUMNER COUNTY

Ward McGinnis' No. 1 Ross, NW SE Sec. 32-35-1 .....Abd. 1,520 ft.

WOODSON COUNTY

F. Field's No. 1 Munson, SW NE SW Sec. 9-25-14 .....Drlg. 500 ft.

Tomball Test Due at Pay Horizon This Week; Three Important Tests Given Up as Dry

By NEIL WILLIAMS
Staff Correspondent, Gulf Coast Fields

HOUSTON, Tex., June 26.—Magnolia Petroleum Co.'s No. 1 Rudel, first test started in the immediate Tomball area following the completion of the Kobs discovery well over a month ago and located a little less than 2 miles to the northeast of the latter producer, now is holding the attention of operators on the coast. Drilling below 5,000 feet, it should reach the pay horizon of the discovery well before the close of the week and give up a little information as to the extent and trend of production of that area. The well is reported to be running favorably. The discovery well was completed in the Cockfield at a total depth of 5,569 feet. Since completion it has been flowing at the rate of 5 bbls. per hour steadily, being pinched to a minimum pending completion of Humble Pipe Line Co.'s new line from the field. A price of 65 cents was posted by the Humble Oil & Refining Co. for Tomball the past week.

Test Is Dry

After drilling to a total depth of 7,438 feet Magnolia Petroleum Co.'s No. 1 Martens, located a little over a mile farther north from the Rudel test, has been given up as a dry hole. This wildcat, started about the same time as the discovery well, was virtually removed from the picture a month ago when it found salt water in the pay horizon. However, the hole was carried on down for geological information of the lower formations.

H. H. Sloan's No. 1 Peden, John Brock Survey, 10 miles east of the Tomball wells, which revived leasing activity in that direction when it was reported as running structurally high, is expected to resume operations this week after a temporary shut down. At a total depth now of 5,045 feet it also has only a few hundred feet to go to reach the pay horizon. Although originally figured in on the general lease play which swept across northern Harris and southern Montgomery Counties, this area now is believed to represent a separate condition from the Tomball Field proper.

Sinclair Prairie Oil Co.'s No. 1 Kirnayer, Jesse Denton Survey, northwestern Harris County, about 10 miles west of Tomball, has been abandoned in salt water sand at 5,902 feet. This is on a block taken during the Tomball-Huffsmith lease play and is on a direct line with it.

Southern Montgomery County

Wildcat interest again is being directed to southern Montgomery County north of the Tomball district where two new wildcats are being started. Showers & Moncrief are spudding in their No. 1 Rohlf in the Daniel Garrett Survey (Abstract 224) while L. C. Thorpe has a location for No. 1 G. W. Sutherland in the C. McRae Survey. The latter test is located on the Lowrie & Young block, on which a number of shallow geological tests and two deep tests have been drilled by these operators, who have had the block for several years. The new test, located southwest of the Lowrie & Young two deep tests, is being drilled in connection with a deal which has just been made with R. L. Sprinkle. The Showers & Moncrief test is several miles southeast of a wildcat drilled and abandoned early this year by R. L. Sprinkle in the H. Prosens Survey. The latter was one of several deep holes put down in southern Montgomery County during the Tomball lease play.

Colorado County Test Abandoned

Humble Oil & Refining Co. is writing off its No. 1 McLane, Garwood district of southern Colorado County. The test, a mile northwest of Coyle-Concord Oil Co.'s wet gasser discovery well which was completed last year in a sand at a total depth of 4,051 feet, was abandoned as dry at 6,766 feet. This company now is reported making location for a second test on the block southwest of the gasser and an offset to Plymouth Oil Co.'s No. 1 Reams, completed several weeks ago at 6,203 feet as the discovery oil producer of the area. The latter well, which had been shut in since completion, was opened 18 hours early in the week for a test flow and made 17 bbls. per hour through a fourteen-sixty-fourths inch choke showing a pressure of 450 pounds on the tubing and 1,000 pounds on the casing.

Good Well in Iowa Field

Magnolia Petroleum Co. extended production of the Iowa Field, Calcasieu Parish, Louisiana, a location northward by the completion of its No. 1 Gillson flowing 1,474 bbls. through a quarter-inch choke with a pressure of 1,280 pounds on the tubing and 1,380 pounds on the casing. Bottom of the hole is 7,027 feet. This is a north offset to No. 3 Waite, completed several weeks ago.

The Texas Co.'s No. 1-B Belcher, a southwest extension of Manvel, Brazoria County, has been brought in from sand at a total depth of 5,156 feet flowing 32 bbls. per hour for the first five hours through a seven-sixteenths inch choke. It had a tubing pressure of 180 pounds and a casing pressure of 200 pounds.

Cullen & West's No. 2 Whitemore, north end of the Thompson Field, was completed flowing initially at the rate of 57 bbls. per hour through a three-eighths inch choke from sand at a total depth of 5,395 feet. Humble Oil & Refining Co. and Gulf Production Co.'s No. 14 Lockwood, same field, blew out while drilling at 4,770 feet and cratered, losing the hole.

On the extreme north side of Barbers Hill, Humble Oil & Refining Co.'s No. 2 Kirby made a good well in an upper Oligocene sand at 4,580 feet, flowing 35 bbls. an hour through a quarter-inch choke with a pressure of 400 pounds. It marks another step in filling in the gap in the line of production between the north flank and the deep production on the extreme northwest. On the east flank, Sinclair Prairie Oil Co., which deepened its No. 10 Wilburn from a sand at 4,849 feet to one at 5,173 feet, got a well flowing initially at the rate of 2,240 bbls. daily through two half-inch chokes with a pressure of 315 pounds.

Nine Completions in Conroe

Nine completions were reported in the Conroe Field the past week, all being within proven limits. Conroe again is showing an increase in drilling activity with several companies attempting to catch up in their proportionate share of completed wells and acreage density. At the latest check there were 450 producing wells in the field, a little over half of the number expected to be completed in the program scheduled for the field. Production is being held pretty well under control, the daily output the past week being 60,385 bbls. with an allowable of 134 bbls. per well of 20 acres. Considerable interest is being directed at the hearing to be held June 30 when the question of a change in the proration plan of the field from a well acreage to a potential production basis will come up. It was for this hearing that the Railroad Commission recently made test flows of 56 key wells in the field.

Test in Matagorda County

Continental Oil Co., which recently completed a trade with H. C. Cockburn for the Citrus Grove prospect in Matagorda County, has made location for its first test, No. 1 Boker, Lot 17, Robbins & Middle Subdivision, J. W. Criswell Survey. Machinery is being moved in. This will make the third deep test to be drilled on the block. A couple of years ago Empire Gas & Fuel Co. drilled No. 1 Boker, Lot 14, which blew out from a sand at 6,248-52 feet. Failing to complete the well, this company after sidetracking a stuck drill stem deepened the hole to a total depth of 6,460 feet, where in heaving shale it was abandoned. The block was turned back to Mr. Cockburn, who had discovered the area with geophysical instruments, but later another deal was made with Harvey Smith and associates, who drilled another test, which also was abandoned, and who turned the block back.

At Buckeye, Matagorda County, United North & South Development Co. went in to work over its No. 1 L.&B.M., which had stopped producing, but in pulling screen the well came back in flowing an estimated 3,000 bbls. daily. It originally was completed last March flowing 85 bbls. an hour through a half-inch choke. Bottom of hole is 7,858 feet.

In the Greta Field

Interest at Greta, newly opened field in Refugio County, lower Gulf Coast district, now is centered in oil showings which have been encountered in Vidauri Oil Co.'s No. 1 Welder, James T. McGrew Survey, in a sand at approximately 3,500 feet. It is reported that 12 feet of sand was cored, being topped at 3,498 feet. This well is 3½ miles north of the Greta discovery well and between it and Humble Oil & Refining Co.'s O'Connor Pool in what is known as the McFaddin district. The sand in the Vidauri well is believed by some operators to be the same as the 3,700-foot sand in the Refugio Field. The sand in the Greta discovery well is at 4,400 feet and is one not productive in the Refugio Field. The Vidauri discovery indicated a structure of fairly large extent, this area being the top with the Greta district possibly being on the side.

The Greta district experienced its second blowout within two weeks when Greta Oil Corp.'s No. 2 O'Brien got away while drilling in sand and shale at 2,600 feet. The gas, however, is through the 10-inch surface casing cemented at 898 feet and so far the hole has not cratered. E. M. Buckner's No. 1 O'Brien, an offset to the Greta blowout and which was nearing the pay horizon at 4,360 feet, has cemented a string of 7-inch casing at 4,345 feet as a precaution against the gas breaking through into it. W. L. Pearson's No. 1 Wilson Heard, the first blowout, has about killed itself and a location has been made for No. 2 Heard, located 750 feet northwest of it. Alamo Oil Co.'s (McGeehee and associates') No. 1 O'Brien, 2,300 feet northwest of the discovery well, late in the week was coring shale below 4,300 feet and should be on the pay horizon by now.

Greta Field Hearing

Recommendations that only one well be drilled to each 25 acres in the new Greta Field of Refugio County were made at hearing before the Railroad Commission held in Corpus Christi June 21. It also was proposed that in all wells drilled within a half mile of a blowout two surface strings of casing be cemented, consisting of one string of large pipe to be set down to around 350 feet to pro-

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Gulf Coast Fields and Wildcats

Week Ending June 24

RACCOON BEND—AUSTIN COUNTY

Company, farm and location—	Remarks
Goodnight and Donald Oil Co.'s No. 1 Deitrich, Thos. Bell Sur., 200 ft. SE Flannagan et al's No. 1 Deitrich	Drlg. sand and shale 4,532 ft.

DAMON MOUND—BRAZORIA COUNTY

Intercoastal Oil Co.'s No. 11 Wisdom, 350 ft. E of No. 5, Blk. 51, Lot D, A. Durst Sur.	Spudded.
Sinclair Prairie Oil Co.'s No. 31-A Bryan, 155 ft. N, 45 deg. E of SW cor. of Blk. 28, Masterson Subd., and 140 ft. S, 45 deg. E, A. Darst Sur.	T.D. 7,586 ft; standing.

MANVEL—BRAZORIA COUNTY

The Texas Co.'s No. 1-B Belcher, H. N. Little Sur., 300 ft. out of N cor. of "B" lease	Set 52 ft. of 4¾-in. screen 5,156 ft; comp. flowing 32 bbls. per hr.; 7/16-in. choke; tubing pressure 180 lbs.; casing pressure 200 lbs.
The Texas Co.'s No. 2 Davis, 200 ft. out of S cor. Lot 42, H. N. Little Sur.	Drlg. sand 2,386 ft.
The Texas Co.'s No. 3 Ewing, H. N. Little Sur., 350 ft. from E line, 400 ft. from S line of Lot 30	Drlg. shale, lime and boulders 2,678 ft.

BARBERS HILL—CHAMBERS COUNTY

Mills Bennett Prod. Co.'s No. 3-A Wilburn (W.O.), Henry Griffith League	Set 38 ft. of 6⅝-in. screen 5,358 ft.; washing.
Mills Bennett Prod. Co.'s No. 3 Kirby (W.O.), 645 ft. E and 40 ft. S of NW cor. lease	T.D. 4,411 ft; pulling screen to deepen.
Humble O. & R. Co.'s No. 2 Kirby (W.O.), Henry Griffith League	Set 46 ft. of 5-in. (O.D.) screen, 4,580 ft; flowed 1,110 bbls. in 24 hrs.; ½-in. choke; tubing pressure 200 lbs.; casing pressure 450 lbs.
Sinclair Prairie Oil Co.'s No. 9 Wilburn (W.O.), Henry Griffith League	T.D. 4,381 ft; pulling screen to deepen.
Sinclair Prairie Oil Co.'s No. 10 Wilburn (D.D.), Wm. Hodges Sur.	Set 135¼ ft. of 3-in. screen, 5,172 ft; comp. 2,240 bbls. through two ½-in. chokes, 315 lbs.

(Continued on Page 60)

Showings Indicate Possibility of Two New Pools in Duval and One in Starr County, Texas

By B. D. STEVENSON
Staff Correspondent, Southwest Texas Fields

SAN ANTONIO, Tex., June 26.—Three interesting developments looking to possible new pools in northern Duval County, and one in Starr County featured the past week in Southwest Texas.

Magnolia Petroleum Co.'s No. 1 Duval County Ranch Co., 330 feet from the south and east lines of the northeast quarter of Survey No. 363, about 2 miles northwest of the north end of the North Government Wells Pool, tested 7 joints of oil and a volume of gas in 15 minutes from sand at 2,254-59 feet. Casing has been set and it was expected to be ready to drill in early in the week. It is presumed that the sand is the Mirando, a member lower than that of the Government Wells sand, but due to the Magnolia well being up the dip it gets the sand at lesser depth.

William B. Stewart's No. 2 Duval County Ranch Co., in Survey No. 362, is a gas well in the Cole sand at 1,567 feet. It is located about 2,500 feet southeast of the Magnolia well.

While the drill stem test of the Magnolia well is not estimated as indicating anything bigger than about a 150-bbl. well, the importance is in the location and the indication of another pool in northern Duval County. Several wildcat tests have been drilled in that part of the country in months past in an effort to find the spot on the structure that was productive, and it looks like the combination of Stewart's gasser in the Cole sand and the Magnolia well in the Mirando sand in connection with some tests drilled a mile or two to the northeast are going to result in solving the question.

More Drilling in Prospect

During the week the DeSoto Oil Co.'s (first reported as Coronado Oil Co.'s) No. 1 Wood-Welder, in Survey No. 211, 4 miles northeast of the North Government Wells Pool, and about 4 miles east of the Magnolia well, was completed as a gas well at 2,168 feet, after plugging back from 2,500 feet. This well is about 1 mile east of the Sun Oil Co. well in Survey 78 that pumped about 7 bbls. a day from sand at about the same depth. It has since been abandoned as being too small to operate. These two wells, however, are probably sufficient to encourage some more drilling in that direction from the North Government Wells Pool.

Down in the Peters Pool, Shasta Oil Co. and Highland Oil Co.'s No. 4 Peters made about 4,000,000 feet of dry gas at 2,457-94 feet and has plugged back to 2,350 feet where it had a pretty good oil showing and will try to bring in an oil well. The gas was found at about the same depth as the two gas wells that constitute the field and located about 1 mile southwest. On another mile northeast of the No. 4 Peters, Brooklyn Oil Co.'s No. 1 Sutherland, in Survey No. 187, at 2,447-58 feet has been completed for a good sized gas well but spraying quite a lot of oil. This Brooklyn test is about 5 miles southwest of the Sarnosa Pool which is the southernmost of the Government Wells group and directly in the trend and getting production at about the same depth.

Net results in the Peters Pool district do not yet fully indicate an oil field but seem to be getting closer to it.

Indications of a Pool

The other feature of chief interest in the Laredo district the past week was the further testing of the Sun Oil Co.'s No. 1 Guerra in northern Starr County, about 1 mile from the north line of the county and about 5 miles from the west line of the county. A separator was put in and it gauged 2 bbls. an hour for 16 hours and in addition made gas at the rate of about 17,000,000 feet daily. It is making so much oil that it is presumed some further drilling will be done. The sand is classed by some as the Mirando sand, logged in this well at 2,208-18 feet.

The trends in that part of the country are rather more toward the northwest while in the north end of Duval County they trend to the northeast. The Los Olmos Pool is about 15 miles south and a little east of the Sun well and the Alworth Pool in western Jim Hogg County, the southernmost production in the Mirando district, is about 15 miles nearly due north.

Dry Hole in Southern McMullen

In southern McMullen County, S.R.C. Oil Co. and Sinclair Prairie Oil Co. abandoned their No. 2 La Chusa at 3,005 feet, contract depth, dry. Finding gas in the DeSoto No. 1 Wood-Welder seems likely to encourage further drilling to the northeast of it. Other than this and the activity in the Peters Pool and the new Magnolia find in Survey No. 363, the important tests to be watched are all in McMullen County. The Boysen & Hotchkin No. 1 Haggist in southern McMullen County is rigging up and the Shumway No. 3 Shiner and the V. G. Schimmel No. 2 Wulf farther north are down several hundred feet.

Following the same trend on the northeast into Live Oak County, the Argo Royalty No. 1 Nichols topped what is identified in the field at Mirando sand at 1,372 feet and had cored to 1,376 feet.

Completion of the pipe line from the Moca Field is expected early this week and oil will be ready to run. D. R. Semmes completed one test in the new Moca Field and had a second about ready to complete at the close of the week and other operators were getting started.

Laying a Pipe Line

In southern Jim Wells County, where the Magnolia some weeks ago completed No. 2 Seeligson, a wildcat location, as an oil well, the company has started laying a pipe line 3 or 4 miles to loading rack on the Southern Pacific Railroad. No further drilling has taken place since the completion of the first well but the laying of the pipe line and building of the loading rack is taken as an indication that further drilling will be started and development of the field. It is 20 miles or more from any other production.

Coquat, O'Neil & Phillips are rigging up No. 3 Sanger, in southwestern Live Oak County. The matter of especial interest in that connection is that of two other tests they drilled on the Sanger, pure wildcat territory, one had four sands and showed almost enough oil to make a paying well. This inspired the drilling of the No. 3 Sanger.

Balcones Fault Zone

Paton Brothers' No. 1-B Turner, in northern Lee County, on the Tanglewood fault, topped the Edwards lime at 6,600 feet, and drilled and cored to 6,625 feet. It looks like a failure but late information is that a drill stem test might be made, using a wall packer and setting above a cavity in the Georgetown at 6,490 feet where there was a showing of oil.

Of the cores taken only 1 foot was recovered of one core and only 6 inches of another and in each case about half of the core was porous. The fact that so little was recovered indicates that the rest was very porous, otherwise it would have been recovered. In the Luling district the Edwards is so porous that it crumbles and it is difficult to get a core. At one time some oil showed on the ditch but the judgment of some is that it came from the Georgetown and that the showing was not improved when the drill went into the Edwards lime.

This is one of three deep tests for Edwards lime now active and including the Evans & Gant No. 1 Mikulec in Bastrop County and the Amerada Petroleum Corp.'s No. 1 Halff & Oppenheimer in Frio County, five tests that were removed farther away from the Balcones fault than it has been customary for operators to drill for the Edwards lime. There had been a theory among some that the Edwards would not be porous at great depth, but the Amerada test at below 6,300 feet, the Evans & Gant test below 7,400 feet and the Paton Brothers test below 6,600 feet, all found the Edwards porous. Unless something shows up on the drill stem test in the Paton Brothers' No. 1-B Turner it will be abandoned.

In Wilson County, in another of the deep tests for Edwards, the Humble Oil & Refining Co. late in the week was below 2,200 feet and in shale and sand rock in the No. 1 Hardy, and in Zavala County, in the other of the series of deep Edwards tests, the Zavala Oil & Gas Co. drilling below 6,050 feet was thought to be going out of the Austin chalk, but with no positive identification as yet. If it gets the Edwards at 6,300 feet it is considered it will be plenty high. The Amerada Petroleum Corp. test in Frio County topped the Edwards at 6,302 feet.

Serpentine Pools

The crowning success of the week in the Serpentine district was the pumping of the Marts & Beavens' No. 2 Reyes in southwestern Bastrop. It made 175 bbls. in 24 hours, 12 feet in the Serpentine at 1,707 feet. This is better than the estimates of last week, none of which were over 150 bbls.

In the Riddle Pool in southern Bastrop the Witherspoon No. 1 Harris reported completed some days before was put on the pump and made 160 bbls. the first 24 hours.

The Magnolia Petroleum Co. is extending its line from the Dale Pool in Caldwell County north to take in the producers in the Riddle Pool of which there are now several. The line will be only 3 or 4 miles long.

In Bexar County, the C. W. Boler No. 1 Kearney that had a good showing in the Austin chalk set casing and drilled in but the hole bridged probably from cavings. This was knocked out and the well showed some oil but not sufficient and it was being treated with 1,000 gallons of acid to see if it would improve.

O. W. Killam's No. 1 Seitz in northwestern Atascosa County a few miles south of the Somerset Field got a second cement job that held with total depth 3,646 feet but the well tested dry and it has been trying to get back on bottom to drill deeper. There was considerable Serpentine cored in the well and it had some oil in it.

In the Coast country around Corpus Christi there is only one active test that is attracting attention and that is John F. Camp's No. 1 King in the King Pool in western Nueces County. Two gas wells were completed in that district at around 4,000 feet, one of them about 100 feet deeper than the other, thus opening a gas field. Camp has moved southeast and is drilling in the hope of getting oil. At the close of the week he had about 600 feet more to reach the gas sand in the shallower of the two gas wells.

Wildcat Operations in Southwest Texas

Week Ending June 24

Company, farm and location—	Remarks
ATASCOSA COUNTY	
A. Blume's No. 1 Shaw, 690 ft. from N line, 1,780 ft. from E line of 100-ac. tract in W. Farquhar Sur. No. 275	T.D. 1,628 ft.; S.D.
E. C. Burton's No. 1 Smith-Mowinkle, 3,100 ft. from N line, 200 ft. from W line of F. Perez Sur. No. 172.	Spudded in.
O. W. Killam's No. 1 Seitz, 1,700 ft. from NE line, 5,150 ft. from NW line of Cruz Landin Sur. No. 45.	T.D. 3,646 ft; trying to get on bottom to drill deeper.
BASTROP COUNTY	
Adams & Lyles' No. 1 Peter Goertz, 1,075 ft. from N line and 250 ft. from W line of 40-ac. tract in Andrew Mays Sur.	Rigging up.
F. E. Emanuel's No. 1 H. Klemm, 817 ft. from W line 400 ft. from S line of tract in H. S. Teal Sur.	T.D. 263 ft.; standing.
Ca-Tex O. & G. Dev. Corp.'s No. 1 Harris, 150 ft. from NW line, 3,000 ft. from SW line of John Maxmillan Sur.	T.D. 2,143 ft; coring lower Taylor and showing gas.
Ca-Tex O. & G. Dev. Corp.'s No. 1 Pendergrass, 1,343 ft. from NE, 310 ft. from SE line of 130-ac. tract in Henry Warnell Sur.	Derrick
Marts & Beavens' No. 2 Reyes, 640 ft. NE of No. 1	T.D. 1,707 ft; comp. 384 bbls. in 24 hrs.
BEE COUNTY	
Nichols & Bruner's No. 1 Grover Heldenfels, 391 ft. to S line, 1,950 ft. to E line of 327-ac. tract survey, John Bryan, 4 miles S from Beeville	T.D. 4,440 ft; resumed operations; washing down.
BEXAR COUNTY	
Amsden & Foster & Amsden's No. 1 S. A. Irrig. Farms, 600 ft. E of Kinney Road, 1,500 ft. N of Elm Creek.	T.D. 1,136 ft.; laying water line.
C. I. Albertson's No. 1 Vogt, 2,100 ft. from N line, 240 ft. from E line of 157-ac. tract in Sec. 2 of S. McCollough Sur. No. 53	T.D. 906 ft; abd.
O. N. Beer's No. 1 S. W. Kearney, 150 ft. from S and E lines of 23-ac. tract in S. C. I. Perez Sur.	T.D. 1,250 ft; tested a little oil; being treated with 1,000 gal. acid.

(Continued on Page 58)

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Advanced Crude Prices Stimulate Operations in Northern Louisiana and Adjacent Territory

By D. H. BANCROFT
Staff Correspondent, Louisiana-Arkansas

SHREVEPORT, La., June 26.—For the past several months there has been a slow but steady increase in the number of operations carried on field reports of North Louisiana and Arkansas, practically all of them in North Louisiana, and this week is no exception. There were more new permits, 18 in all, this week than for any other week in the past two months. Fourteen of these were for North Louisiana wells, one in Arkansas and three in Mississippi.

Among the Louisiana wells were six in Caddo Parish, which, 27 years old as an oil and gas producing area, is still the scene of more or less activity in both wildcat and proven areas. The low price of crude prevailing in the territory until the recent advance did not seem to be such a brake on drilling and now that the new prices will allow some producers a few cents per barrel profit instead of the loss they suffered under the old schedule, this increase in activity is expected to continue for the remainder of the summer and perhaps well on into the winter.

For the first time in many months Panola County in the East Texas gas area figured in field reports when Mid-Continent Drilling Co.'s No. 1 Wooten, in the P. Martin Survey, 5 miles west of DeBerry, developed a show of gas and oil 3 feet in the Blossom sand at 2,075 feet, total depth. Tubing was run and an attempt made to rock the well in under its own pressure but without results. It built up 250 pounds in one hour and 45 minutes, but would not flow better than a small head of 47 gravity oil at long intervals and swabbing has been resorted to, results of which were not known at this writing. Several years ago the Texas Co. developed four or five small wells in that vicinity from around the same depth.

Revival in Elm Grove

Elm Grove district of Bossier Parish furnished the first new location made there in two or three years when Dr. C. R. Reed, trustee's, was rigged up to drill No. 1 Crawford, Jenkins & Booth in Section 18-16-11.

Four of the six new locations in Caddo were in proven territory, one of the four being in the Blanchard gas field and another in the Rodessa gas field in the northwest corner of the parish. Ark-La-Tex Oil & Gas Co.'s No. 1 Simon is a location in the SW NW Section 15-20-15. Arkansas-Louisiana Pipe Line Co. has a rig up for No. 1 Williams & Windham, NE NW Section 4-22-16. Louana Oil & Gas Co.'s No. 2 Sharpe, NE NW Section 10-18-16, Blanchard district, is a derrick, as is United Gas Public Service Co.'s No. 1 Festervan, NW SW Section 33-23-16, Rodessa district. John F. Kerper made location for No. 1 Barron, NE SE Section 27-16-14, on a block of 5,000 acres 10 miles south of Shreveport, assembled for a 3,500-foot test. J. T. Humphreys and others made location for No. 1 Powell, NW SE Section 14-19-15, 4 miles north of Blanchard townsite and 12 miles northwest of Shreveport, on a block of 2,400 acres assembled for a 2,500-foot test.

George Greer and others, whose No. 1 Louisiana Central Lumber Co. in Section 2-9-6 Catahoula Parish, blew in with gas and salt water last week from 2,744 feet, skidded derrick 500 feet west and have rig up for No. 1-B on the same lease. The lost well having developed the first show of either gas or oil in commercial quantities in the territory embraced in the Conroe-Jackson trend, and furnishing definite information as to about where either may be encountered, this second well will be checked even closer than was the first. Tom McKinney and others have derrick up for No. 1 J. M. Nabors in the SE SE Section 26-12-12, Dolet hills district of DeSoto Parish where more or less production was developed several years ago. One new wildcat was staked in Natchitoches Parish and another abandoned some time ago has been revamped. Dick Calvert and others have derrick up for No. 1 DeBlieux estate, NE NW Section 83-10-7. Tullos Oil Co.'s No. 1 Stephens, Section 25-10-6, abandoned by R. A. Keeton as a salt water hole at 1,772 feet is the revived test and was reaming to bottom.

Inabnet & Pipes completed No. 2 Van Horn in Section 14-18-4e, Ouachita Parish, and drove stakes for No. 3 on the same lease in the SW NE Section 14. E. M. Thomason made location for No. 1 T. J. Crichton in the Crichton district of the old Lenzburg-Crichton Field of Red River Parish developed during 1913. The first new test in Richland Parish for the last year is United Carbon Co.'s No. 1 J. A. Noe, SW NE Section 14-17-5, a semiwildcat in the northwest corner of proven and semiproven gas territory.

K. E. and W. N. Merren of Shreveport were drilling at 50 feet on No. 1 Taafe, NW NW Section 25-12-32, Little River County, Arkansas. Mississippi's three new operations were: Meredith Trading Co.'s No. 1 Crown-Lawrence, NW SW Section 23-6n-1e, Hinds County, rig up; Muse & Muse's No. 1 Carlton, SW SW Section 13-5n-1e, Rankin County, drilling at 150 feet; Mutual Oil & Gas Co.'s No. 1 Boyd, SW SE Section 24-2n-9e, Ealthall County, derrick pattern.

Eight New Completions

There were eight completions in Louisiana, one in Arkansas and two in Mississippi, three of them gas wells and the others failures. Zwolle district of Sabine Parish accounted for five of the dry holes and a Sabine wildcat was also a failure. One of the gassers was in the Blanchard district of Caddo Parish, one in the Ouachita Parish sector of the Monroe gas field and the third in the Rankin County side of the Jackson gas field of Mississippi.

Louana Oil & Gas Co.'s No. 1 Winters, SE NE Section 4-18-16, Caddo Parish, gauged 7,000,000 feet of gas at 950 pounds from 2,759 feet. Inabnet & Pipes' No. 2 Van Horn, Section 14-18-4, Ouachita Parish, made 850,400 feet of gas at 585 pounds from 2,252 feet. Byers and others' No. 1 Ervin & Bishop, SW NE Section 16-7-11, Zwolle district of Sabine Parish, was dry and abandoned at 2,502 feet. Graham Production Co. abandoned derrick for No. 1-B Lites, SE SW Section 28-8-11. E. F. Neely's No. 1 Garner, SW NE Section 15-7-11, was dry at 2,750 feet. Scully & Beach's No. 3 Lafitte, NW NW Section 13-7-11, was abandoned as not being a profitable pumper, total depth 2,636 feet. Skidmore & Mize's No. 1 A. Stoker, SE NW Section 33-8-10, was junked at 1,600 feet. State Production Co.'s No. 1 Lites, SE SW Section 28-8-11, set 6-inch with shoe at 2,236 feet, bailed dry and was abandoned at 2,600 feet. Carroll and others' No. 1 Robert Adams, SE SW Section 3-19-26, Lafayette County, Arkansas, scheduled to go 4,000 feet to test a 6,000-acre block, was abandoned at 3,367 feet. P. J. McAlpine abandoned No. 1 Rye, Section 22-15-17, Monroe County, Mississippi, a quarter mile from the Amory discovery well of 1927, at 2,937 feet. Julian Alexander, trustee's No. 1 Rice, NE NW Section 6-5-2e, Rankin County side of the Jackson Field, gauged 33,511,000 feet of gas from 2,412 feet.

Daily Average Production

The daily average runs from the several pools for the week ending June 24 were:

NORTH LOUISIANA

	Bbls.
Caddo light	4,480
Caddo heavy	1,610
Cotton Valley	580
DeSoto-Red River	1,600
Elm Grove	300
Haynesville	3,925
Holly	160
Homer	2,685
Pleasant Hill	240
Sarepta-Carterville	780
Urania	2,000
Zwolle	6,130
Total	24,490
Last week	25,185
Decrease	695

ARKANSAS

Champagnolle	1,380
El Dorado	2,600
Lisbon	410
Miller County	75
Nevada County	480
Smackover light	2,570
Smackover heavy	21,985
Stephens	375
Urbana	430
Total	30,305
Last week	30,320
Decrease	15
Both states	54,795
Last week	55,505
Decrease	710

Wildcat Operations in Louisiana-Arkansas

(Rotary operations unless otherwise designated)

North Louisiana

AVOYELLES PARISH

Company, well, farm name, section and block—	Remarks:
Gary Prevenson's (was Bud Harrell et al) No. 1 Haas, 330 ft. N and W, SE cor. SW SW Sec. 9-1s-3e	Derrick.

BOSSIER PARISH

Cryer Oil Co.'s No. 1 fee, 2,400 ft. N, 1,980 ft. E, SW cor. Sec. 35-19-12	Cmtd. 6-in. csg. 853 ft; drilled plug; W.O.
A. W. Phillips, tr.'s No. 1 Oden, 300 ft. W, 150 ft. N, SE cor. NW NW Sec. 4-18-13	Bailing 1,704 ft.
Dr. C. R. Reed, tr.'s No. 1 C.J.&B., Sec. 18-16-11	Rigging up.
B. A. Sherrell, tr.'s No. 1 fee, NE NW NW Sec. 18-19-11	Set 10-in. 150 ft.

CATAHOULA PARISH

George Greer et al's No. 1-B La. Cen. Lbr. Co., Sec. 2-9-6, 2,045 ft. N, 1,930 ft. W, SE cor.	Rigging up.

CLAIBORNE PARISH

United Gas Public Service Co.'s No. 1 Meadows, approximately 100 ft. S, center E½ E½ Sec. 13-21-5	Drlg. 6,279 ft.

DESOTO PARISH

Bailey Gants et al's No. 1 Jenkins, NW cor. SE SW Sec. 35-13-12	Drlg. plug 2,900 ft; T.D. 3,069 ft.

RAPIDES PARISH

Evers & Collingsworth's (was A. G. Beck et al's) No. 1 Hickman-Simmons Lbr. Co., 330 ft. S, 330 ft E, NW cor. Sec. 40-4-1e	S.D. 1,650 ft.

RED RIVER PARISH

Edward & Clay's No. 1 Delta Pecan Co., 1,600 ft. N, 450 ft. E, SW cor. Sec. 27-13-11	W.O.S.R. 2,470 ft.

SABINE PARISH

C. D. Lee, tr.'s No. 1 Whitney, 330 ft. N and W, SE cor. NW NE Sec. 19-9-14	Base chalk 2,197 ft; S.D.; W.O. 3,205 ft.

CONVERSE DISTRICT

Lambert et al's No. 1 Edwards, 300 ft. S and E, NW cor. SW NW Sec. 29-9-13	D.S.test 3,045-3,328 ft; S.W. and muc; W.O.
Joe Modisette's No. 3 Frost Lbr. Industries, 330 ft. S and E, NW cor. NE SW Sec. 16-9-13	Set 12-in. 122 ft; drlg. 1,540 ft.

WEBSTER PARISH

Dorcheat Synd.'s No. 1 Good Pine Lbr. Co., 330 ft. S and E, NW cor. NE NE Sec. 35-22-10	Began drlg. June 7; cmtd. 10-in. 160 ft.; drlg. 2,000 ft.

Arkansas

COLUMBIA COUNTY

C. W. Alworth et al's No. 1 W. D. King, SW cor. SE SW Sec. 16-17-20	Drlg. 700 ft.

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NORTH LOUISIANA

A. W. Phillips' No. 1 Oden, NW SW Section 4-18-13, Bossier Parish, pulled 6-inch pipe, set with packer at 1,360 feet,and was bailing, total depth 1,704 feet. Haynesville Partnership ran another drill stem test on No. 1 Garrett, NW SW Section 24-23-8, Claiborne Parish, Haynesville townsite, that developed salt water with a show of gas at 4,414 feet and was coring in the red beds at 4,503 feet. Contract depth for this deep test is 4,700 feet. United Gas Public Service Co.'s No. 1 Meadows, Section 13-21-5, Claiborne Parish, the "Lisbon well," was drilling red and gray shale with streaks of sand at 6,274 feet.

P. B. Dyer's No. 1 B. F. Jenkins, NW SW Section 35-13-12, DeSoto Parish, 6 miles east of Mansfield, tested 4,000,000 feet of gas with a light spray of oil at 2,477 feet. Bailey Gants' No. 1 Jenkins, SE SW of the same section, was arranging to drill plug at 2,900 feet, total depth 3,069 feet. E. T. Oakes' No. 1 Bryant, the Longstreet deep test in the NE NW Section 30-13-15, is shut down at 4,660 feet. Jack Whitson's No. 2 Sanders, SW SW Section 19-11-13, was shut down at 2,925 feet after a show of gas in sand from 2,860-62 feet. In Rapides Parish, Smith and others' No. 1 Lee Lumber Co., NW SE Section 13-5-2e, on or just north of the northern fringe of the more or less loosely defined limits of the territory embraced in the Conroe-Jackson trend play, ran drill stem test at 3,328-42 feet and in the seven minutes the tool was open developed five fourbles of salt water and four of mud and was drilling at 3,350 feet. Evers & Collingsworth's No. 1 Hickman-Simmons, NW NW Section 40-4-1e, is shut down at 1,650 feet.

Nick Barbare's No. 1 Ryals, NW NW Section 27-9-13, Converse area of Sabine Parish, a mile southeast of production,

(Continued on Page 53)

Drilling in California Expected to Show Increase; New Locations Staked in Mountain View

By L. P. STOCKMAN
Staff Correspondent, California Fields

LOS ANGELES, Calif., June 24.—Drilling operations in California are expected to show an increase during the next several months although development work will be substantially below the average during the past several years. There is a possibility drilling operations will be on about a par with 1932, but much depends upon the outcome of work in the Huntington Beach town lot area and the rapidity with which drilling is undertaken in the Mountain View Field of Kern County. A number of locations have been staked in the latter area but so far only two wells have been started. Dana Hogan contemplates drilling at least one additional hole within 30 days. Barnsdall has staked four locations, Dana Hogan three and Mohawk Petroleum two. Petrol Producing Co. has staked location for a new well on the Shumway lease and Long Beach Petroleums has been issued a permit to start three new wells on the Vedder-Petrol lease in Section 29-30-29.

The Rosecrans Field of Los Angeles Basin may also be a contributing factor toward increased drilling due to projected development of the Trust, or Gordon, zone, which it is generally believed will be found commercially productive. Barnsdall has indicated its intention of redrilling and deepening No. 3 Rosecrans, No. 1 Trust and Nos. 10 and 15 on the O'Dea lease, but this work may be held in abeyance pending the outcome of work on No. 3 Higgins of Cypress Petroleum Co. Cypress Petroleum's project in the Rosecrans Field is standing cemented at 5,660 feet but is expected to resume drilling within the next few days. Barnsdall cored the deep Trust, or Gordon, zone in No. 2 Trust out in the extreme western end of the Rosecrans structure a year or so ago. On a production test, No. 2 Trust showed an initial daily production of 100 bbls. The company subsequently deepened a well nearer the apex of the structure but deemed it advisable to finish it in the Zins zone instead of carrying it into the Gordon horizon. This delayed deep exploration work but interest may be revived in the Gordon zone if Cypress Petroleum succeeds in completing No. 3 Higgins as a commercial producer.

Lost Hills-Belridge

Associated picked up the top of the Temblor in No. 1 Williamson, a projected deep test in the Lost Hills Field of Kern County which the company is drilling in conjunction with Richfield Oil Co. The Temblor was topped at 4,400 feet but drilling operations are still under way. The high head water in this area has not seemed to bother the Associated very much but it is thought likely the company will land and cement an additional string of casing if the Temblor looks at all promising. This well is of prime importance because if commercial production is developed it will open several thousand additional acres of potentially productive oil land. In the North Belridge Field, Continental Oil Co. was still in brown shale as the 5,000-foot level was passed in No. 4 Result, but this well is expected to pick up the productive Temblor within a few weeks. Associated is experiencing water trouble in No. 4 Reward but has not yet located the source of the trouble.

The North Kettleman Oil & Gas Co. has recovered some of the drill pipe lost in No. 1 Lillis-Welsh, but is still fishing for a little over 1,200 feet of the fish in the bottom of the hole. This project, the deepest hole drilled up to the present, presents a difficult problem but is not entirely hopeless, although some difficulty may be experienced in either recovering the fish or sidetracking past the obstruction. The fish in the bottom of the hole is not causing as much anxiety as the fact the well showed salt water on a recent production test. If this water is coming into the well either at the shoe or through a hole in the casing above the shoe, it will be a simple problem to remedy it. If, however, the water is coming from the bottom of the hole it presents a problem that cannot be rectified. No. 1 Lillis-Welsh was down 10,944 feet when the twistoff occurred. Associated, unable to eliminate the water trouble in No. 3 Whepley, a project out on the north flank of the field, has taken the well off production and temporarily suspended work at 8,858 feet. Kettleman North Dome Association apparently ran into bottom water in No. 21-1-P and has plugged back the hole from 8,997 feet to 8,758 feet. The water was located at 8,820-30 feet. Standard has plugged back No. 8-21-J from 8,217 feet to 8,160 feet and recemented the hole due to water trouble. Completions in the Kettleman North Dome Field will probably be spread out over the next several months due to restriction in drilling operations and mechanical trouble in several projects.

San Miguelito

Continental Oil Co. has just picked up the top of the lower Grubb zone in the San Miguelito Field of Ventura County but Honolulu Consolidated has not yet topped this horizon. No. 2 Grubb of Continental, approximately midway between No. 1 Grubb and No. 1 Valenzuela of Honolulu Consolidated, is approximately 300 feet lower stratigraphically than Continental's initial completion. Honolulu's test in this area is running approximately 500 feet lower than No. 1 Grubb of Continental, but is expected to pick up the lower Grubb zone within a week or so. Neither No. 2 Grubb nor No. 1 Valenzuela encountered the upper Grubb zone. Chanslor-Canfield Midway Oil Co. has temporarily suspended drilling operations in No. 3-A Hobson pending the outcome of work on No. 1 Valenzuela. The limited amount of work undertaken in this field tends to indicate the productive limits of the field will be rather narrow.

Shell Oil Co. completed No. 75 Taylor, a new well in the Ventura Avenue Field, early in the week. This project, bottomed in the upper zone at 5,602 feet and finished with a 6⅝-inch liner carrying 200 feet of perforated, was brought in flowing 1,370 bbls. of clean 30.6 gravity oil per day through a 1-inch bean under a casing pressure of 760 pounds. No. 15-A Barnard of the General Petroleum, a projected deep zone completion, is in oil sand at 7,700 feet but still has another few hundred feet to go before completion. Associated has limited its drilling operations in the Ventura Avenue Field to four strings of tools and will undoubtedly continue to restrict drilling operations during the next several months.

Rincon

Indian Petroleum Co.'s No. 1 Shudde, on tideland permit No. 82 in the Rincon Field of Ventura County, has proven somewhat of a disappointment upon completion at 3,455 feet as it is pumping only 135 bbls. of oil and 56 bbls. of water per day. This zone was less productive than the upper horizon and may prompt the company either to plug back to the upper zone or drill in the hope of picking up something better. Woodrow Oil Co.'s No. 1 Lomas in this area has likewise proved a distinct disappointment, as this project, bottomed at 7,292 feet, is swabbing only a little oil with the mud and water. Doyle Petroleum Co. has definitely abandoned No. 3 on Bolsa Chica Oil Co.'s permit No. 191 in the Coal Oil Point area of Santa Barbara County as unproductive at 4,163 feet. This abandonment about concludes exploration work in this district as most of the permits revert to the state August 1. There are two wells under way in the Elwood Field of Santa Barbara County and both Bankline Oil Co.'s No. 10 on permit No. 89, and Caroline Spalding's No. 7 on permit No. 93, should be completed in the Vaqueros within three weeks. Standard is making good footage in its No. 1 on the Chase and Bryce property in the Goleta gas field of Santa Barbara County, but it will probably be 60 days before this well is deep enough to pick up the More gas zone. Drilling operations in the Santa Barbara Mesa Field have been only partially successful during the past month but may show a change for the better as two new wells, No. 1 McMillan of Paramount Oil Co. and Fred Cole's No. 2 Knott, are being prepared for early spud.

Mount Poso

Pongratz Oil Co. completed No. 2 in the Mount Poso Field of Kern County early in the week and this new well, completed in the lower Vedder zone, was brought in pumping 871 bbls. of exceptionally clean 16.6 gravity oil per day from 1,807 feet. Ed Richter topped the lower Vedder zone in No. 1 Glide at 2,109 feet and after finding the Vedder zone barren to 2,214 feet, suspended drilling operations preparatory to abandonment. Bern Oil Co. has plugged back No. 1 Glide from 1,887 feet to 1,768 feet and is scheduled to make a production test during the next few days. Federal Petroleum Co. has finished No. 3 Dominion in the upper Vedder zone at 1,580 feet and is completing preparations to make a production test shortly. In the Round Mountain Field of Kern County, Howells Brothers have drilled out the cement in No. 1-A in Section 32-28-29, following the landing of a string of 12½-inch casing at 298 feet.

Midway-Sunset

In the Midway-Sunset Field of Kern County, California Western Oil Co. has recompleted No. 6 in Section 17-11-23 pumping 303 bbls. of 19.9 gravity oil per day after plugging back the hole from 4,014 feet to 3,435 feet. Honolulu Consolidated has run into a fishing job in No. 35 in the Midway-Sunset Field while bailing for a shutoff test on the 8⅝-inch landed at 2,377 feet. General Petroleum has passed the 1,000-foot level in No. 1 Lovitt, a wildcat which the company is drilling just north of the McKittrick Field of Kern County in Section 10-30-21. Hub Petroleum Co. was still in brown shale as the bit reached the 6,400-foot level in its No. 1 in the Gould Hills district. The formation in this well has alternated from a brown shale to a light colored sand but the well has not at any time shown unusual indications of resulting in production. This well was thought to have picked up the Temblor above the 6,000-foot level, but this now seems unlikely. In the Devil's Den area Pyramid Hills Oil Co. has temporarily suspended drilling operations on No. 1 at 3,974 feet. Drilling operations will be resumed after another string of casing has been secured. Lincoln Petroleum Co.'s No. 12, originally started as a core hole or structure survey test, is rotating a little below 1,450 feet. The Fruitvale Field is relatively inactive, although there are still three incompleted drilling projects under way. Badger Oil Co. has taken over the old Descanso Oil Co.'s No. 1, a wildcat in the Wheeler Ridge district in the southern part of the San Joaquin Basin, and contemplates an early resumption.

Huntington Beach

Drilling operations in the Seventeenth Street town lot area of the Huntington Beach Field are not progressing as rapidly as anticipated and this area will not be as important as originally expected. Several wells will probably be completed

TANKER SHIPMENTS FROM LOS ANGELES TO DOMESTIC AND FOREIGN PORTS

	June 10		June 3			
Intercoastal-domestic—	Total this week	Daily average	Total last week	Daily average	This year to date	Same time last year
Crude oil	.....	.....	.....	.....	78,035	.....
Fuel oil	.....	.....	69,035	9,862	722,704	.....
Diesel and gas oil	.....	.....	.....	.....	1,085,064	147,070
Gasoline	226,037	31,441	75,656	10,522	3,746,048	3,459,148
Kerosene	79,940	11,420	.....	.....	496,994	154,372
Foreign exports—						
Crude oil	70,392	10,056	111,012	15,859	3,234,864	4,116,426
Fuel oil	124,468	17,781	195,302	27,900	2,847,752	4,163,792
Diesel and gas oil	.....	.....	67,500	9,643	1,539,382	1,159,709
Gasoline	101,930	14,569	108,552	15,507	2,726,257	4,328,005
Kerosene	.....	.....	29,487	4,212	822,813	1,124,463
Naphtha distillates	.....	.....	.....	.....	.....	75,425
Coastwise-domestic—						
Crude oil	64,310	9,187	.....	.....	4,328,559	6,517,779
Fuel oil	144,718	20,674	272,049	38,864	4,496,545	5,834,128
Diesel and gas oil	23,294	3,328	11,950	1,708	682,499	675,761
Gasoline	237,139	72,445	205,328	29,120	5,418,659	7,138,010
Kerosene	5,079	726	5,539	791	100,697	75,475
Naphtha distillates	.....	.....	.....	.....	27,651	.....

TANKER SHIPMENTS FROM SAN FRANCISCO TO DOMESTIC AND FOREIGN PORTS

Diesel and gas oil	.....	.....	.....	.....	380,531	151,320
Gasoline	.....	.....	.....	.....	500,966	368,230
Kerosene	.....	.....	.....	.....	482,436	.....
Lubricants	.....	.....	.....	.....	16,400	15,824
Foreign exports—						
Crude oil	147,071	21,010	76,235	10,889	973,793	707,651
Fuel oil	62,975	8,868	.....	.....	361,366	521,659
Diesel and gas oil	2,589	370	89,950	12,850	584,718	352,107
Gasoline	71,594	10,271	85,302	12,186	2,097,111	1,746,261
Kerosene	10,066	1,429	13,450	2,636	459,853	491,863
Lubricants	.....	.....	.....	.....	21,926	24,934
Coastwise-domestic—						
Fuel oil	75,467	10,781	77,402	11,057	1,404,560	1,364,772
Diesel and gas oil	.....	.....	.....	.....	166,162	221,583
Gasoline	30,114	4,302	39,559	5,651	1,585,422	1,499,367
Kerosene	2,987	427	13,101	1,872	73,619	45,756
Lubricants	.....	.....	.....	.....	2,751	.....

in the town lot area early in July but the balance will be somewhat later. Bestmi Petroleum Co. and O. R. Howard Co. landed whipstocks in their respective tests early in the week and drilling is expected to be resumed in a day or so. Lucky Strike Oil Co. has taken over No. 1 Lewis, an old well of Texas Co., and is making preparations to redrill. Bonita Huntington Oil Co. is erecting rig over Richard Young's No. 2, abandoned a few years ago at 4,421 feet. Wilshire Oil Co. has spudded in No. 16 Huntington, and is building rigs for Nos. 17 and 18, preparatory to an early spud.

Hapco Petroleum Co. completed No. 2 Signal, a new well in the Long Beach Field early in the week, pumping 291 bbls. of 25.9 gravity oil per day from 5,280 feet, the hole having been finished with a 4½-inch liner. General Petroleum recompleted No. 1 Fulton McKee pumping 133 bbls. of 25.8 gravity oil per day after plugging back the hole from 7,658 feet to 5,988 feet and perforating the 5½-inch at 5,020 feet. Continental Oil Co. finishing an exceptionally good well in the Seal Beach Field of Los Angeles Basin a few days ago when No. 14 Bixby was swabbed in flowing 1,310 bbls. of clean 29.6 gravity oil per day from 6,535 feet. This well, which used the first string of semiflush coupled casing, was finished with a 5-inch liner including 641 feet of perforated. Continental is attempting to complete No. 6 Selover McGrath, but this well, deepened from 6,320 feet to 6,340 feet, does not seem to have much kick and may require further work.

Dominguez

Two wells are expected to be completed in the Dominguez Field of Los Angeles Basin within two or three weeks, as No. 44 Reyes of the Shell and No. 18 Callender of the Union have cemented the water string. Sunrise Petroleum Co. has spudded in No. 1 Dominguez, on acreage originally developed by Marland Oil Co. but subsequently abandoned because of edgwater. Sunrise Petroleum will attempt to develop commercial production by careful drilling and the selection of a minimum thickness of oil sand. In the Richfield district of Los Angeles Basin Geneva Oil Co. has plugged back No. 3 McFadden from 3,890 feet to 3,686 feet, but the well appears to be still wet. Four additional wells are under way in the Richfield district, all below the 3,300-foot level. Wedge Oil Co. has taken over Nugent Oil Co.'s No. 1 at 4,272 feet and will attempt to develop commercial production.

Universal Consolidated Oil Co., a subsidiary of Richfield Oil Co., has indefinitely suspended drilling operations on No. 1 Crus, a projected Miocene test in the Montebello Field, and is expected to remain idle at 6,311 feet until conditions improve. As far as can be ascertained, this exploration work is incomplete and the suspension may be due, more or less, to the desire to advance curtailment than because of any unfavorable developments encountered as the result of drilling. Union Oil Co. has resumed drilling on No. 5 Del Rey in the Playa Del Rey Field of Los Angeles Basin, following a temporary suspension 60 days ago. This well, bottomed at 5,882 feet, is being prepared for a production test. Bachman Petroleum Co. is building rig for a new well to be drilled in the Playa Del Rey Field, but spud is not expected to be made for 15 days. Consolidated Crude Corp. has finished No. 1 Southern Crude in the schist at 6,149 feet and while 6⅝-inch casing is on the rack, it is not known whether this pipe will be landed and cemented in the hole. This well has only 747 feet of 14-inch casing in the hole.

Wildcats

Texas Co. has started a new test in the Pico district of Los Angeles Basin in Section 13-2-12, in an area fairly well prospected. Previous tests indicate the immediate area to be synclinal in structure, although there may be an uplift at this point. Despite the numerous wildcats drilled in the general area some operators are still of the opinion a new field should normally be located in the immediate area. Many of the wells were not drilled deep enough to prove conclusive tests. This condition is particularly true in Southern California, as progressive deep drilling has indicated the possibility that the lower part of the Miocene may be productive notwithstanding the Pliocene and overlying upper Miocene has been found barren.

Western Gulf, discoverer of the Fruitvale Field of Kern County, has blocked out approximately 100,000 acres north of Coalinga and reports indicate Ohio has also leased considerable acreage in the area north of Fresno. It appears probable that most of the wildcat exploration in California during the next six months will be in the San Joaquin Valley south of Coalinga and north of Wheeler Ridge.

La.-Ark. Fields

(Continued from Page 51)

topped chalk at 1,575 feet and was bailing, total depth 1,591 feet. O. S. Golden's No. 1 Cranford, NW SE Section 20-9-13, cemented 8-inch at 1,507 feet, total depth 1,550 feet. Location is a quarter mile northwest of Evans Brothers' producer at 1,854 feet. Mamie Hammonds' No. 1 Patrick, SE SE Section 1-9-13, is shut down at 3,235 feet after a show of gas at 3,177-88 feet. Helena Oil & Gas Co.'s No. 1 Pugh, SE SE Section 18-9-13, is shut down at 1,230 feet. Joe Modisette's No. 3 Frost-Johnson, NE SW Section 16-9-13, half a mile northeast of his producer in Section 20, topped marl at 1,440 feet and was drilling at 1,540 feet. In Zwolle, Mid-Continent Crude Oil Purchasing Co.'s No. 1 Louisiana Long Leaf Lumber Co., SE SE Section 12-7-11, was dry at 2,642 feet and is awaiting orders. Pugh-Hickman Drilling Co.'s No. 7 Blackman, NE NW Section 36-8-12, is shut down at 2,538 feet. Service Drilling & Royalties Corp.'s No. 2-B Gardner, SW NW Section 7-7-10, was dry on drill stem test at 2,528-2,636 feet. In Vernon Parish, Llano Del Rio Co-operative Colony's No. 1 Gulf Lumber Co., SE NE Section 6-1n-9, in the Conroe-Jackson trend, was coring at 2,310 feet. Dorcheat Syndicate's No. 1 Good Pine Lumber Co., NE NE Section 35-22-10, Webster Parish, 6 miles northeast of Cotton Valley, was drilling at 2,550 feet. Location is 1,800 feet west of the same interests' No. 1 Pardee, Section 36-22-10, drilled as W. O. Blackman, trustee, and abandoned at 2,811 feet after a show of oil at around 2,600 feet.

ARKANSAS

Although things have quieted down considerably during the past few months, Miller County remains the most active locality in Arkansas, aside from what leasing activity there is going on. Along this line, there are reports of blocks assembled or being assembled in Pike, Howard and northern Nevada Counties, but details are lacking. Fitzwater and others' No. 1 Norsen, SE SW Section 20-15-27, claimed oil sand from 3,005-8 feet, but on drill stem test all it developed was a little gas. Arrangements are under way to set a string of 6-inch. Gleason-Wendell Drilling Co.'s No. 1 Patterson, SE NE Section 5-19-28, was arranging to core after getting the top of the Nacatoch at 1,647 feet. C. H. Murphy and others' No. 1 Mann, SW SW Section 2-16-26, 2 miles southeast of the group of five producers constituting the Miller County Field which have a total production of 100 to 200 bbls., set 10-inch at 200 feet and was drilling at 700 feet. This test may more or less determine the fate of the Texarkana excitement as territory in all other directions from the producers has been tried out with no success. Sam Riggs' No. 1 Boyce, Section 12-15-27, was drilling at 2,290 feet. Sorrels & Tidwell's No. 1 McCowan, NW SE Section 22-15-28, was shut down at 2,860 feet.

Sevier County's wildcat, Collins and others' No. 1 Craig, NE SE Section 15-10-29, that showed gas enough to make a small commercial well at 1,013 feet, bailed dry at 1,024 feet. Lawrence Cook's No. 1 McGehee Planting Co., NE SW Section 5-8-7, Lincoln County, was drilling at 4,350 feet.

Mississippi-East Texas-Alabama

Eastman-Gardiner interests' No. 1 Bank of Deming, NW NW Section 26-8-15, Covington County, Mississippi, was coring sandy shale at 3,030 feet. Snow-Block Petroleum Co.'s No. 1 Watson estate, NE SW Section 24-7-13, Jones County, set 12½-inch surface string at 300 feet and was drilling at 975 feet. Lamar Oil Co.'s No. 1 Scott, NE NE Section 18-2n-14, Lamar County, was drilling at 150 feet. Kistler & Stivers' No. 1 Blake estate, Section 15-17-4e, Warren County, set 12½-inch at 316 feet. Foster Creek Oil Co.'s No. 1 Foster Creek Lumber Co., Section 12-2n-2w, Wilkinson County, in the Mississippi extension of the Conroe-Jackson trend, is shut down at 3,678 feet without a show so far. Original contract was for a 3,000-foot test.

Escambia Oil Co.'s No. 1 State Line Lumber Co., NE NW Section 24-1n-10, Escambia County, Alabama, was drilling at 3,030 feet. DeSoto Oil & Gas Corp.'s No. 1 Gardner, Section 22-15-16, Lamar County, was reaming at 3,300 feet, total depth 3,350 feet. Roy Estabrook and others' No. 1 Walton Land & Timber Co., in Walton County, Florida, was drilling at 4,250 feet.

Ajo Oil Co.'s No. 1 Nichols & Daniels, Hugh D. Shaw Survey, Red River County, Texas, began drilling June 12 and has 10-inch set at 85 feet. General Minerals Corp.'s No. 2 Pickering, D. S. Height Survey of Shelby County, reset 4½-inch at 4,416 feet, tested dry, plugged back to 3,908 feet and tested a little gas with no show of oil. Other than these and the Panola County well referred to, East Texas border counties were inactive as usual.

IMPORTANT NORTHERN CALIFORNIA WILDCATS

Company, well, location—	S.T.R.	Depth	Status:
Fairview Oil Co., No. 1-A Purisima, Santa Barbara Co.	18- 7-34	1,694	suspended
Standard Oil Co., No. 1 Goleta, Santa Barbara Co.	20- 4-28	481	sd. sh. drilling
Duell, O. S., No. 1 Naples, Santa Barbara Co.	7- 4-29	5,132	suspended
Boiss Chica, No. 1 Coal Oil Point, Santa Barbara Co.	tideland	4,039	suspended
Cuyama Oil Co., No. 1 Cuyama, Santa Barbara Co.	12-10-27	2,287	suspended
Woodrow Pet., No. 1 Rincon, Ventura Co.	4- 3-24	7,292	prod. test
Indian Pet. Co., No. 1 Rincon, Ventura Co.	tideland	3,484	pump 130 b/d
Bardeen Pet., No. 1 Fillmore, Ventura Co.	13- 4-19	2,750	redrilling
Hancock Oil Co., No. 1 Fillmore, Ventura Co.	13- 4-19	1,491	sd. sh. drilling
Oil Ridge Oil Co., No. 1 Fillmore, Ventura Co.	1- 4-19	....	build road
Kneiper & Atha, No. 1 Barcadale, Ventura Co.	7- 3-19	316	sd. sh. drilling
Williamson & Donaher, No. 1 Simi, Ventura Co.	36- 3-18	....	port. outfit
Honolulu Cons., No. 1 Miguelito, Ventura Co.	23- 3-24	6,770	hd. sh. drilling
Continental, No. 2 Miguelito, Ventura Co.	23- 3-24	6,771	sd. sh. drilling
C. C. M. O., No. 3-A Miguelito, Ventura Co.	23- 3-24	4,166	suspended
Midlands Pet., No. 1 Ojai, Ventura Co.	9- 3-23	7,841	gr. sh. drilling
Struve, R. E., No. 1 Ojai, Ventura Co.	12- 4-22	....	location
Wilshire Oil Co., No. 1 Sulphur Mtn., Ventura Co.	20- 4-21	1,863	redrilling
Mosher, J. W., No. 1 Santa Paula, Ventura Co.	22- 4-21	1,270	br. sh. drilling
Petro Producing Co., No. 1 Timber Canyon, Ventura Co.	18- 4-20	4,661	suspended
Las Posas Pet., No. 1 Las Posas, Ventura Co.	22- 3-20	3,979	suspended
Wilshire Oil Co., No. 1 Bardsdale, Ventura Co.	12- 3-20	1,732	suspended
International Oil Dev., No. 1 Conejo, Ventura Co.	33- 2-20	2,770	prod. test
Hub Pet. Co., No. 1 Gould Hills, Kern Co.	22-29-21	6,400	br. sh. drilling
Furman, T. H., No. 2 Gould Hills, Kern Co.	27-29-21	325	suspended
General Pet., No. 1 McKittrick, Kern Co.	10-30-21	1,112	br. sh. drilling
Cane Mira Oil Co., No. 1 Belridge, Kern Co.	29-28-20	2,780	br. sh. drilling
General Pet., No. 1 Belridge, Kern Co.	30-28-21	3,260	suspended
Cumberland Oil Co., No. 2 Devils Den, Kern Co.	17-26-18	3,270	suspended
Holloway, A. S., No. 1 Devils Den, Kern Co.	11-25-18	1,843	suspended
Lincoln Pet., No. 1 Devils Den, Kern Co.	10-25-18	1,470	hd. sh. drilling
Hanna, Tom, No. 1 Devils Den, Kern Co.	25-25-18	3,516	suspended
Pyramid Hills Oil Co., No. 1 Devils Den, Kern Co.	24-25-18	3,974	temp. sus.
Fowler, F., No. 1 Blackwell Corner, Kern Co.	15-26-19	3,170	suspended
Associated, No. 1 Lost Hills, Kern Co.	2-26-20	4,467	Temblor 4,400
Howells Bros., No. 1 Round Mountain, Kern Co.	32-28-29	375	cemented
Caravel Pet. Co., No. 1 Edison, Kern Co.	19-30-30	1,801	sd. sh. drilling
Shell Oil Co., No. 2 Mountain View, Kern Co.	29-30-29	....	rigging up
Hogan, Dana, No. 4 Mountain View, Kern Co.	29-30-29	....	location
Bankline Oil Co., No. 1 Mountain View, Kern Co.	4-31-29	rig	rigging up
Barnsdall Oil Co., No. 1 Mountain View, Kern Co.	31-30-29	....	location
Barnsdall Oil Co., No. 2 Mountain View, Kern Co.	32-30-29	....	location
Barnsdall Oil Co., No. 3 Mountain View, Kern Co.	30-30-29	....	location
Barnsdall Oil Co., No. 4 Mountain View, Kern Co.	31-30-29	....	location
Mohawk Pet., No. 3 Mountain View, Kern Co.	30-30-29	....	location
Badger Oil Co., No. 1 Wheeler Ridge, Kern Co.	31-11-19	2,620	will deepen
Gatton & Luethe, No. 1 Madera, Madera Co.	22-10-17	3,390	sd. sh. drilling
Stone and associates, No. 1 Kingsburg, Fresno Co.	20-12-11	rig	rigging up
Bergman, Harry, No. 1 Kingsburg, Fresno Co.	13-12-11	4,148	cemented
Graham & Loftus, No. 1 Raisin City, Fresno Co.	20-15-18	5,780	suspended
Emerich Oil Co., No. 1 Mendota, Fresno Co.	35-13-13	3,392	sd. sh. drilling
Hogan, Dana, No. 1 Joaquin Ridge, Fresno Co.	28-20-16	4,453	sd. sh. drilling
Kent & McDonald, No. 1 Carrizo Plains, Las Luis Obispo	3-32-22	3,530	suspended
Paso Robles Oil Co., No. 1 Edna, San Luis Obispo Co.	27-27-11	4,191	suspended
Guess, E. B., No. 1 Corcoran, Kings Co.	7-21-21	6,197	suspended
Brown, A. M., No. 1 Cloud, Kings Co.	10-23-19	1,205	recemented
Brown, A. M., No. 2 Cloud, Kings Co.	10-23-19	rig	rigged up
Dudley Dome Oil Co., No. 1 Dudley Ridge, Kings Co.	9-23-20	3,012	suspended
Knudsen & Schmidt, No. 1 Reef Ridge, Kings Co.	34-22-17	6,873	suspended
Magee & Stone, No. 2 Alpaugh, Kings Co.	32-24-22	3,570	bl. sh. drilling
Dil-Harp Oil Co., No. 1 Delano, Tulare Co.	25-24-26	1,310	cleaning out
Cardinal Oil Co., No. 1 Los Banos, Merced Co.	26-10- 9	rig	rigging up
Merced O. & G. Co., No. 1 Chowchilla, Merced Co.	2- 9-16	mtl.	building rig
Na-Pa Oil Co., No. 1 Griffith, Napa Co.	7- 8- 3	3,742	br. sh. drilling
Oakdale Oil Co., No. 1 Oakdale, Stanislaus Co.	5- 2-10	4,815	hd. sh. drilling
Pacific Northern Oil Co., No. 1 Guinda, Yolo Co.	23-12- 3	3,430	gr. sd. drilling
Buttes Oilfields Co., No. 1 Marysville, Sutter Co.	35-16- 1	2,731	gas—shut in
Buttes Oilfields Co., No. 2 Marysville, Sutter Co.	34-16- 1	1,160	sd. sh. drilling
Tehama Pet. Co., well No. 1, Glenn Co.	4-22- 5	4,893	gr. sh. drilling
Orland Synd., No. 1 Orland, Tehama Co.	31-23- 3	3,748	suspended
Marker Drlg. Co., No. 1 Orland, Tehama Co.	21-25- 5	3,636	suspended

IMPORTANT SOUTHERN CALIFORNIA WILDCATS

Company, well, location—	S.T.R.	Depth	Status:
Palm Ridge Oil Co., No. 1 Palms, Los Angeles Co.	2- 2-15	5,450	cleaning out
Baldwin Oil Co., No. 9 Inglewood, Los Angeles Co.	7- 2-14	5,863	suspended
Kupfer, A. M., No. 1 Inglewood, Los Angeles Co.	17- 2-14	5,853	repair pipe
Pacific Gulf, No. 1 Athens, Los Angeles Co.	19- 3-13	6,094	suspended
Pacific Oil Inv. Co., No. 1 Wilmington, Los Angeles Co.	28- 4-13	3,640	pump. test
Wilmington Oil Co., No. 1 Wilmington, Los Angeles Co.	28- 4-13	3,646	pump. test
Sunrise Pet. Co., No. 1 Dominguez, Los Angeles Co.	3- 4-13	806	sd. sh. drilling
Peoples O. & G. Co., No. 1 Compton, Los Angeles Co.	31- 3-12	rig	rigged up
Oakes & Mead, No. 1 Lyndwood, Los Angeles Co.	31- 2-12	4,940	suspended
Texas Co., No. 1 Pico, Los Angeles Co.	13- 2-12	1,646	sd. sh. drilling
Community Oil Co., No. 1 Montebello, Los Angeles Co.	34- 1-11	5,280	hd. sd. drilling
Universal Consd., No. 1 Montebello, Los Angeles Co.	5- 2-11	6,311	suspended
Andrus & Hutcheson, No. 1 El Monte, Los Angeles Co.	11- 1-11	1,792	suspended
Signal Pet., No. 1 Puente, Los Angeles Co.	14- 2-10	4,908	cable tools
Willetts Pet., No. 1 Saugus, Los Angeles Co.	35- 5-16	2,974	suspended
Smith, J. A., No. 1 Saugus, Los Angeles Co.	36- 5-17	3,515	suspended
Alpha Oil Co., No. 1 Calabasas, Los Angeles Co.	32- 1-18	1,199	suspended
Hudson Pet., No. 1 Newhall, Los Angeles Co.	1- 3-16	1,565	bailing
Ball, W. T., No. 1 Newhall, Los Angeles Co.	34- 3-16	3,552	suspended
Big Four Oil Co., No. 1 Newhall, Los Angeles Co.	33- 4-16	2,230	suspended
Marble, Willard, No. 1 Van Nuys, Los Angeles Co.	6- 2-16	2,000	suspended
Nuoil Co., No. 1 Newport, Orange Co.	29- 6-10	3,901	suspended
Mineral Expln., No. 1 Capistrano, Orange Co.	8- 8- 7	4,302	suspended
Saddleback Oil Co., No. 1 El Tora, Orange Co.	3- 6- 7	80	suspended
Placentia Dev. Co., No. 1 Placentia, Orange Co.	31- 3- 9	rig	rigged up
Spindletop Oil Co., No. 1 Salton Sea, Riverside Co.	25- 7-10	3,590	suspended
Keeley, H. J., No. 1 Corona, Riverside Co.	21- 4- 6	704	suspended
Great American Pet., No. 1 Chino, San Bernardino Co.	18- 2- 8	2,340	hd. sd. drilling
Great American Pet., No. 2 Chino, San Bernardino Co.	18- 2- 8	116	sd. sh. drilling
McCarthy, C. F., No. 1 Chino, San Bernardino Co.	14- 2- 8	403	sd. sh. drilling
Mason Oil Co., No. 1 Salton Sea, Imperial Co.	1-17-15	630	suspended

Wyandot County Leads in Lima Field Activity; Daviess County, Ky., Has Good Producer

By GEORGE A. WHITNEY
Staff Correspondent, Central West Fields

FINDLAY, Ohio, June 26.—More activity is shown in development work in the old Lima Field and the Central Ohio Field than at any time during the past two years and the greater amount of new work in the Lima Field is centered in Wyandot County, especially in Crane Township, where fairly good wells are reported. In Crane Township, Wyandot County, Keiner and others' No. 1 on the Louis Brandt farm, Section 34, had an initial production of 50 bbls., with Nos. 2 and 3 drilling. Kennedy & Temples' test on the Mary Huffman farm, in Section 28, same township, is reported light at 3 bbls. from 1,340-78 feet, while No. 1 Brandt found its oil from 1,367-88 feet. Crane Township Oil & Gas Co.'s test on the Frank Benner farm, Section 33, same township, shows for a 5-bbl. producer at 1,362-1,412 feet. Clarence Donnell's No. 1 is drilling on the Sarah E. Tschanen farm, Section 34, Crane Township; Ferdell and others have a rig on the Mary E. Sampson farm, Section 20, same township; McPheron and others have a rig on the A. E. Ayers farm, Section 3. Upper Sandusky Oil & Gas Co. has a rig in for No. 2 on the N. and H. Saltzman farm, Section 28, and Ohio Fuel Gas Co. has a location for No. 1 on the Ira Schoenberger farm, Section 28. Crane Township Oil & Gas Co. has a rig on the Delbert Smith farm, Section 33, and Robert W. Kirk and others are drilling on the B. C. Root farm, Section 29, also in Crane Township. Vernon and others made a location on the W. F. Reite farm, Section 13, Salem Township, Wyandot County.

Simms Oil & Gas Co. has made a location for No. 3 on the Bernice Porter farm, in Lot 9,974, Rush Creek Township, Logan County.

In Sandusky County, H. G. Johnson and others have abandoned Nos. 1, 2, 3, 4, 5 and 6 on the M. I. Immel farm, Section 18, Scott Township. In Washington Township, same county, Zorn-Hornung Co. abandoned No. 3 on the J. Fox farm, Section 17, and also pulled out No. 7 on the John Noss farm, Section 20, same township.

A trip to Gibsonburg and Sandusky County showed but one well drilling by M. Wagner and others on the M. Wagner farm, Section 31, Sandusky Township, and a rig for No. 2 on the N. T. Hetrick farm, Section 31, Rice Township, same county.

CENTRAL OHIO

Central Ohio is showing a large increase in development work in most of the counties in which oil and gas have been found. Eight completions were reported, four being gas producers, three dry and one an oil well. In Harrisville Township, Medina County, C. B. Wood drilled in No. 5 on his own farm, Section 36, with an initial of 15 bbls. from the Berea sand from 316 to 335 feet, and in Chatham Township, same county, Edson and others drilled in a dry hole in No. 20 on the George Packard farm, Lot 3, at from 370 to 375 feet in the Berea sand. In Litchfield Township, same county, Spohn and others report a showing of oil on the Clyde Bason farm, Lot 9, in No. 4 and will be completed within a few days.

In Stark County, Jackson Township, East Ohio Gas Co. drilled a dry hole on the Leonard Stockert farm, Section 26, from 4,381-92 feet. In Plain Township, same county, same company drilled in a gas well in No. 1 on the H. G. McDowell heirs farm, Section 15, at from 4,575-4,605 feet.

In Belmont County, the O. K. Oil & Gas Co.'s test on the Fred Jones farm, Section 35, Union Township, was dry at 900 feet, and Robert Morgan and others also struck a dry hole on the James E. Snape farm, Sections 15-21, same township, at 1,072 feet.

In Guernsey County, C. C. Wharton's No. 2 on the H. H. and May Turner farm, Section 10, Westland Township, is a gas well at a depth of 1,248 feet.

In Licking County, G. F. Early and others' No. 2 on the Ray Gardner farm, Section 1, Newton Township, is a gas well at from 762 to 769 feet. Wehrle Gas Co. made a location on the G. W. Kreager farm, Lot 37, Hopewell Township, same county. Settles Oil Co. has a rig for No. 5 on the John A. Hughes farm, Lots 2 and 3, Mary Ann Township, same county.

In Coshocton County, the Wiser Oil Co. is drilling on the Patterson & Crawford farm, Section 17, Perry Township. Floyd Golden and others are drilling No. 7 on the George W. Smith heirs farm, Sections 17 and 18, Perry Township, Licking County. Dempsey and others are drilling on the H. E. Piper farm, in Lot 63, Pittsfield Township, Lorain County. Stewart and others are drilling No. 7 on the David Horn farm, Section 4, Lake Township, Ashland County.

Stark County

In Stark County, East Ohio Gas Co. is drilling below 2,100 feet in No. 1 on the J. W. and C. Shook farm, Section 7, Jackson Township. Same company is drilling around 3,000 feet in No. 1 on the T. and H. McDowell farm, Section 16; same company is drilling below 3,300 feet in No. 1 on the Paul V. Belden farm, Section 18, same township, and below 1,800 feet in No. 2 on the Charles and Stella Strausser farm, same section. White and others are drilling below 4,000 feet on the Sarah Lorenz farm, Section 17, same township. Brendel Producing Co. is drilling below 4,400 feet on the J. S. Unger farm, Section 17, Plain Township, same county; below 4,400 feet on the M. M. Bivenour farm, Section 9, same township; below 3,900 feet in No. 1 on the Minnie A. Sheets farm, Section 8, same township; below 4,300 feet on the I. and E. Markley farm, Section 9, same township, and below 3,100 feet on the David and Nora Frederick farm, Section 10, same township. Cunningham Natural Gas Co. is drilling below 4,250 feet on the Joe Herman farm, Section 17, Plain Township, same county, and below 3,850 feet on the F. and A. Willaman farm, Section 17, Plain Township. Canton Drop Forge Co. is drilling below 3,500 feet on its property, in Section 9,

(Continued on Next Page)

Allowable in Lower Eastern Fields Increased to Normal After 18 Months' Curtailment

By STAFF CORRESPONDENT

PITTSBURGH, Pa., June 26.—Allowable production in the three districts of the lower eastern fields will be increased to normal production or the 100 per cent base for July. In a notice to all producers who are connected to the lines of the South West Pennsylvania Pipe Lines in Southwest Pennsylvania, the Eureka Pipe Line Co. in West Virginia, and the Buckeye Pipe Line Co. in Southeast Ohio, and with whom contracts exist for all oil as run, the South Penn Oil Co. stated that, on account of notice of an increased demand of the part of refiners of Pennsylvania Grade oil, any curtailment of production on the part of their patrons will be unnecessary.

This notice restores allowable production to the base or an average monthly production taken as of November, 1931. It is doubtful whether a complete 100 per cent can be attained as there has been little new production since January, 1932, to take the place of the natural decline in settled production areas. Offsetting this, some operators have found it necessary in keeping water off their wells to exceed slightly the monthly allowable and have stored such excess production in their own tankage. Some portion of this may be run to complete the 100 per cent if their present production is below normal. Such stocks will last but few months if the demand continues.

After 18 months of curtailment on the part of producers of this grade of crude, producers in the East have worked out a careful balance of production and consumption so that resumption of full allowable finds the industry unhampered by large excess stocks of crude in storage. Based on late figures, consumption exceeds present production by about 4,000 bbls. a day, which will be balanced by the new allowable.

Completions in the eastern fields took an upturn during the week. Four producers were completed with an initial production of 62 bbls. Four gas wells were completed, none large, and in addition there were three dry holes. One test in Southeast Ohio proved a fair well.

SOUTHEAST OHIO

The best test for the week was in Southeast Ohio. In Tuscarawas County the Hopewell Fuel Gas Co. completed a test on the G. H. Hursey farm in Lot 22, Washington Township, which made 40 bbls. the first day after shot. It was drilled in the Niagara Lime at a depth of 3,412 feet.

Two producers were completed in Medina County. In Harrisville Township, Lot 36, C. B. Wood completed No. 7 on the A. D. Falconer farm in the Berea grit at a depth of 335 feet. It made 5 bbls. the first day after shot. In Litchfield Township, Section 9, G. W. Spohn completed a test on the C. W. Basom farm, formerly the Walter Everhart, in the same formation and at 393 feet. It produced 2 bbls. the first day after shot.

In Meigs County, A. N. Bengle completed a test on the Meigs County Children's Home in the corporate limits of Pomeroy, Salisbury Township. It is a small gas well, about 44,000 feet a day, from the Berea sand at a depth of 1,641 feet. There was a very light showing of oil too small to save.

In Athens County, Ohio Fuel Gas Co. completed its No. 5,727 on the Sunday Creek Coal Co. tract, in the northeast quarter of Section 34, Trimble Township. It is a small gas well, 34,000 feet a day in the Berea sand at a depth of 1,090 feet.

WEST VIRGINIA

One producer was completed in West Virginia during the week. In Roane County, on the waters of Buffalo Creek of Mill Creek in Curtis district, Reedy Oil & Gas Corp. completed a second test on the G. A. Knopp farm. It was drilled in the Salt sand, a depth of about 1,750 feet, and is showing for 15 bbls. a day. This is about 3,000 feet north of its test on the L. M. Riddle farm, also a fair producer.

In Boone County, Pure Oil Co. completed its test on the Pocatello Coal & Coke Co. tract in Crook district. It was drilled in the Weir sand, a depth of 2,996 feet, and is showing slightly in excess of 200,000 feet a day. In Sherman district, this company is testing the gas in No. 61 on the Federal Coal Co. property at a depth of 2,262 feet.

In Washington district, Boone County, Pond Fork Oil & Gas Co. drilled its No. 14 on the Cole and Crane lease through the Brown shale to a depth of 3,055 feet and found a very light showing of gas, about 17,000 feet a day. It was dry in all formations.

In Wayne County the West Virginia Gas Corp. drilled its test on the C. M. Watts farm in Union district deeper from the Berea sand down through the Brown shale, a total depth of 3,649 feet. It is showing for about 200,000 feet a day from that formation.

In Ritchie County, H. N. Rinehart drilled his test on the J. B. Markey farm deeper to the Injun sand, depth 1,885 feet, and found it dry. This farm is in Grant district.

In Wood County, in an outside test, C. T. Smith drilled a test on the George Webber farm in Clay district through the Second Cow Run sand and a total depth of 1,225 feet. It was dry. The Webber farm is on Dutch Ridge of that district.

Drilling in West Virginia

In Lost Run Pool, Clay district, Ritchie County, the Hinton Farm Oil Co. has made a location for a second test on the L. E. Robinson farm. Adjoining this farm is the Hinton well which still holds up as a fair well. No. 1 on the Robinson farm also is holding up. On the Bohem and Neeley lease, Frank Finley and others are rigging up for a second test. In Murphy district, Lewis

Gas Co. is rigging up on the Conley Brothers lease. On the Frank Ball farm in Clay district, Richards Farm Oil Co.'s test is flowing about 65 bbls.

New tests continue to increase in Cabell County. In Guyandotte district, Fairfax Gas Co. has a rig up on the United Fuel Gas Co.'s lot. Ross Campbell is setting a machine on the Juliette Enslow lot. Graham Gas Co. is spudding in on the S. P. Hager farm. Pettry and Borders have started drilling on the Shelby Johnson farm. Huffman Oil & Gas Co. is down 1,875 feet on the William Prindle lease. Adkins and Marsh have reached 1,550 feet on the C. M. Watts lot. Swanson and Martin are down 1,485 feet on the J. T. Tubert lot. Copeland Gas Co. is drilling at 1,210 feet on the E. N. Waugh. C. C. Wolfe is running casing on the T. H. Tanner farm, to a depth of 2,225 feet, and in No. 5 on the Ben Lomond Land Co. tract is waiting for the shot at 3,080 feet. In McComas district, Manufacturers Light & Heat Co. has reached 1,416 feet on the W. H. Holton farm. In Union district, G. W. Shipes and others are fishing at 725 feet on the Callie Massey farm.

In Wayne County, Cisco Drilling Co. has reached 1,550 feet on the Sampson B. Bailey farm in Ceredo district. In Union district, West Virginia Gas Corp. is drilling at 280 feet on the Henry Adkins farm.

In Lincoln County, Turtle Lick Gas Co. is rigging up for a second test on the George Thompson farm in Jefferson district. Pridemore and Adkins have part of the material on the ground on the Henry Chandler heirs farm.

In Mason County, on the waters of the Ohio River, in Waggoner district, John Miller and others have started drilling on the C. W. Petty farm. This location is about 450 feet north of Berea Oil & Gas Co.'s test on the Smith and Petty lease. In Marion County, Victor Oil & Gas Co. is rigged up on the Charles H. Freeland farm in Mannington district.

In Gilmer County, McCall & Co. are abandoning their attempt to drill deeper their No. 1 on the Mary Frymeyer farm in DeKalb district. They were unable to fish out the packer. In the same district A. E. Ellis and others are down 1,250 feet on the Ware and Webster lease.

SOUTHWEST PENNSYLVANIA

While there were no completions in Southwest Pennsylvania during the week, activity has taken a definite upturn. Three additional operations are listed. In North Franklin Township, Ed Tague and others have started drilling No. 3 on the J. H. Moore farm, Washington County. In Greene County, near Mapleton, Fred Garrison has started drilling on the Frank South farm. In Richhill Township, Earhart & Co. and George B. Drake have started drilling a second test on the Steven Barnhart farm.

In Amwell Township, two wells are nearing completion. Hallam and Lewis are down 2,840 feet on the John Roach farm. The Pittsburgh Coal is at 720 feet. Carnegie Natural Gas Co. has reached 2,625 feet on the Mrs. Meunzer farm. Raymond Orrill is down 2,340 feet in No. 3 on the Martha Hazlett farm. Jess Moore & Co. is now rigging up on the Parker farm.

In Fayette County, Carnegie Natural Gas Co. is rigging up on the H. H. Wells farm in Jefferson Township.

Wildcats

There was little change in the status of the wildcat wells in lower West Virginia and Virginia. The only headway made was in the Benedum & Trees test on the I. Kaufman farm in Wise County, Virginia, where after a slight fishing job, reaming was continued to permit deeper drilling.

Central West Fields

(Continued from Preceding Page)

Canton Township, same county. Hoover Development Co. has started drilling on the Hoover company's property, Section 18, Plain Township, same county. White and others are moving in tools on the Jacob Isler farm, Section 25, Perry Township, Stark County.

In Coshocton County, Palmer & Deisinger are drilling below 3,443 feet on the Solemon Haun farm, Section 8, Clark Township. Preston Oil Co. is spudding in No. 1-1,522 on the Cary D. Harris farm, Section 17, Perry Township, same county.

In Tuscarawas County, the Hopewell Oil & Gas Co. drilled in No. 1 on the G. H. Hursey farm, Lot 22, showing for a small producer, having produced 52 bbls. of oil in six days at 3,412 feet.

INDIANA AND ILLINOIS

Indiana and Illinois failed to report any new completions or any change in wells under way, rigs or locations.

KENTUCKY

The best completion for the week in the Owensboro Field of Kentucky was drilled by Hupp, French and others, 850 feet from the south line and 150 feet from the east line of the Aca Bratcher farm, in the Can Run Pool, of Daviess County, with an initial of 144 bbls. at a depth of 688 feet. Ira Huff and others' No. 1, 175 feet from the north line and 600 feet from the east line of the R. Ambrose farm, in the same pool, which produced an initial of 30 bbls. at 710 feet. Tracey Supply Co.'s No. 5, 450 feet from the south line and 175 feet from the east line of the S. W. Richardson farm, same pool, produced 15 bbls. at 726 feet. Brenner & Adams' No. 3, 900 feet from the south line and 150 feet from the west line of the R. E. Jackson farm, same pool, was a dry hole at 910 feet. Snowden, McSweeney and others' test, 200 feet from the south and east lines of the Clint Hedden farm, 2 miles northwest of Whitesville, in Daviess County, was abandoned as dry at a total depth of 880 feet.

Mount Pleasant 350 Barrel Completion Will Compel Drilling of Two Offsets

By GEORGE A. WHITNEY

MOUNT PLEASANT, Mich., June 26. The best completion in the Mount Pleasant-Midland Field reported for the week was Columbia Oil & Gas Co.'s No. 6, 330 feet from the north line and 990 feet from the west line of the George Harnick farm, NE NW SE Section 15, Greendale Township, Midland County, being credited with from 200 to 500 bbls. from the Dundee formation, but it has been reported with an initial around 350 bbls. It will bring about two offsets.

Talbot Oil Co.'s No. 4-C, 330 feet from the south and east lines of the State of Michigan property, SE SE SE Section 10, same township, has been drilled into the Dundee but failed to flow, although several hundred feet of oil was in the hole and will be treated with acid.

In Porter Township, Midland County, Pure Oil Co.'s No. 2, 2,310 feet from the north and east lines of the Mina C. Naramore farm, in the SW Section 15, is reported good for 360 bbls. initial but this production failed to sustain itself and the well a few days after had dropped to around 150 bbls. a day. In the same township, Sun Oil Co.'s No. 1, 330 feet from the south and east corners of the J. L. Miller estate property, SE SE NW Section 16, which produced 75 bbls. initial and reported as a 40-bbl. producer. The well may be drilled to the deeper pay.

Johnson & Kirkcomb's No. 1, 330 feet from the north line and 330 feet from the east line of the Frank Otway farm, NE NE NE Section 27, Porter Township, Midland County (direct west offset to Michigan & Pacific's No. 1 Otway farm, the first completion made in Section 27, Porter Township and said to have produced around 5,000 bbls. initial), was 65 feet into the Dundee without finding a commercial producer.

Mildand County

Strange & Fortney are drilling No. 1, in the northwest corner of the Campbell farm, NW NW SW Section 17, Porter Township, Midland County. C. W. Teaters is drilling No. 1 in the northeast corner of the Joseph Wale farm, Section 22, Porter Township. Strange Oil & Gas Co. is drilling two wells, No. 2 being in the southwest corner of the Sam Welley farm, Section 15, Porter Township, while No. 3, 990 feet from the west line and 330 feet from the south line, are both under way. Fred W. Turner is drilling No. 1, 330 feet from the north line and 990 feet from the east line of the Clarence Baxter farm, NW NE NE Section 22, same township. Stork Oil Co. is drilling No. 2, 990 feet from the north and west lines of the Jess B. Richmond farm, SE NW SW Section 22. William J. Wilson is drilling on the Glen R. and Mildred Hathaway farm, NE NW Section 18, same township. Charles Daugherty and Fred Markley are drilling 990 feet from the south and west lines of the Mrs. F. Forbes farm, NE SW SW Section 15, same township. Theodore Oil Co. is drilling 990 feet from the north line and 415 feet from the west line of the Campbell farm, SW NW NE Section 17. Stewart and Gordon Oil Co. is drilling No. 3, 990 feet from the south line and 330 feet from the east line of the J. B. Richmond farm, NE SE NW Section 22, Porter Township. Pure Oil Co. is drilling No. 3 in the southwest corner of the Nina Naramore farm, SW SW SW Section 15, and has made a location for No. 3, 330 feet from the east line and 2,310 feet from the west line of the same farm. Pure Oil Co. is also drilling No. 1, 330 feet from the south line and 990 feet from the east line of the George L. Huff farm, SE SE Section 15; and No. 1, 990 feet from the south line and 330 feet from the west line of the C. L. Baxter farm, SW SE Section 15, also in Porter Township. Land & McClure are drilling No. 1, 990 feet from the north and west lines of the J. H. Otway farm, SE NW NW Section 26, same township, and No. 1, 990 feet from the south line and 330 feet from the west line of the J. Hill farm, NW SW SE Section 22. George C. Hanners is drilling in the southeast corner of the G. R. Hathaway farm, SE SE NE Section 17. A. P. Scheid is drilling in the northwest corner of the Cecil and Mary I. Acker farm, NW NW NW Section 24, Porter Township.

In Greendale Township, Midland County, Stewart & Gordon are drilling No. 6, 990 feet from the north line and 330 feet from the west line of the J. Opperman and others' farm, SW NW SE Section 12.

In Jasper Township, Midland County, Pure Oil Co. is drilling a test, 1,065 feet from the north line and 660 feet from the south line of the Frank Sinif farm, N half NE Section 6. Greendale-Lee Development Co. is drilling in the northwest corner of the Willard Hitsman farm, NW NW SW Section 7, Lee Township, Midland County. Thompson Fortney is drilling in the southwest corner of the Gilbert A. Currie farm SW SW SW Section 16, Mount Hawley Township, same county.

Building up of an active and large membership organization of oil and gas producers in Michigan will be the aim of the Michigan Oil and Gas Producers Association organized at Mount Pleasant some time ago. Haswell Grant, president of the association, indicated that efforts will be made to increase its effectiveness.

New Locations

New locations made during the week in Michigan bring the total to 123 for this year, only 60 short of the entire number for 1932. About double the number of locations have been made to date this year to the same time last year.

A. R. Burland and E. E. Travis have made a location in the northeast corner of the C. E. Macomber farm, NE NE NW Section 19, Greendale Township, Midland County. Gordon Oil Co. secured permit to drill No. 2, 990 feet from the north line and 330 feet from the east line of the Muscott and others' farm, SE NE NE Section 17, Greendale Township, same county; Thompson Brothers for No. 1, 990 feet from the south line and 330 feet from the east line of the Claud Harnick farm, NE SE NE Section 14, same township; Charles C. Flarida & Co. for a test 1,913 feet from the north line and 602 feet from the east line of the Pringle heirs' farm, NE S half NW Section 14, Greendale Township; and Ira Scheifley for a test 330 feet from the north line and 990 feet from the west line of the Abraham Bambouskirk farm, NE NW SE Section 4, Greenwood Township, Clare County.

Napoleon Oil & Gas Co., of Jackson, Mich., has moved a rig over an old hole drilled some few years ago to a depth of around 2,000 feet a short distance southeast of Napoleon, in Section 31, Napoleon Township, Jackson County.

Michigan Oil & Gas Co. struck a gas pay in the formation called the Michigan series, which is above the Marshall formation in a test on the William Busche farm, C SW SW Section 10, Wise Township, Isabella County. The gas was found 6 feet higher than in producing gas wells in the Vernon Field. The Marshall formation also was reported running high—some 16 feet high on the base. After reaming down operations are going ahead below the Marshall sand.

Strange Oil & Gas Co.'s test, in the southeast corner of the Sam Walley farm, S half SE Section 16, Porter Township, Midland County, is reported drilling below 3,200 feet and due for completion within a short time. This test is about a half mile north and somewhat west of Gordon & Teater's Baxter and about half a mile southwest of Pure Oil Co.'s big well, on the State-Porter farm, which was estimated when brought in at 5,000 bbls. initial.

McClanahan Oil Co.'s test, 330 feet from the north line and 1,320 feet from the east line of the G. R. Hathaway farm, C S half S half NE Section 17, Porter Township, Midland County, is reported drilling in the Traverse formation which is running high when checked with the Muscott farm well farther north. Same company is drilling below 1,000 feet at a test 330 feet from the south and west lines of the S. M. Densmore farm, SW SW NW Section 4, Porter Township, same county.

In Mecosta County, the second test being drilled by James M. Taggart and others, 625 feet from the north line and 495 feet from the west line of the Robert Fish farm, SW NW SE Section 10, Austin Township, is now drilling around 1,000 feet. No. 2 is approximately a half mile west and north of the discovery well on the Barton farm, which was credited with 4,000,000 feet of gas.

OIL AND PETROLEUM YEAR BOOK

Walter E. Skinner's Oil and Petroleum Year Book, 1933, has passed into its twenty-fourth annual issue. Within its 446 pages are contained particulars of 671 English and foreign companies—producers, refiners, dealers, transporters and finance companies. Lists of directors and officials, their addresses and company connections, list of 539 trade names of petroleum products marketed by various companies, and a glossary of nearly 500 technical terms and words peculiar to the oil industry are given. Published by Walter E. Skinner, 15 Dowgate Hill, Cannon Street, London, E. C. 4. Price 8s. 6d. net, post free.

OSAGE QUARTERLY ALLOTMENT

The Osage Indians received their quarterly tribal allotment June 21. Each competent headright received $122 as compared to the thousands a few years ago when oil royalties made the tribe the richest in the world. Full blood restricted Indians received $1,000, the amount fixed by Congress.

New Operations Start in Colorado-Wyoming; Cut Bank Producer Flowing Over the Top

By TOLBERT R. INGRAM
Staff Correspondent, Rocky Mountain Area

DENVER, Colo., June 26.—The allowable outlet of the Hobbs Pool for the last half of June was increased 4,667 bbls. per day to 33,502 bbls. One new operation was reported in the Hobbs Pool, and Amerada Petroleum Corp.'s No. 1 Hardin, an edge well at the north of the pool, is making 25 bbls. per hour with water. One location in San Miguel County was abandoned. In Colorado, California Co.'s deep test on the Rangely Dome, which has been flowing 20 bbls. per hour, was given another shot of 600 quarts. One new location was made in the Tow Creek Field in Routt County and two in Delta County.

In Wyoming, a 315-bbl. well was completed in the Poison Spider Field, west of Casper, two new operations were started in the Osage Field and two old wells in the Lance Creek Field started drilling deeper.

Montana had a discovery in Santa Rita Oil & Gas Co.'s No. 1 Jacobson, in the Cut Bank area, near the Canadian line, which flowed over the top. One completion was reported in the Cut Bank Field.

NEW MEXICO

Lea County

The allowable outlet of the Hobbs Pool for the last half of June was increased 4,677 bbls. daily to 33,502 bbls. as a result of an increase in the nominations of Shell Pipe Line Co. from 13,500 to 18,000 bbls. daily and a small increase by Texas Co. A slight addition to the potential of the field was made by one completion, the total as of June 16 being 1,301,545 bbls.

One new operation was reported in the Hobbs Pool in Shell Petroleum Corp.'s No. 4-B McKinley, SW NE SW Section 20-18-38, an inside location. Cellar and pits have been completed. This is the only active operation in the pool with one exception.

Amerada Petroleum Corp.'s No. 3 Hardin, NW cor. SW Section 18-18-38, at the extreme north end of the pool, was redrilled to 4,085 feet after plugging back from 4,180 feet and drilling through the pipe at 4,014 feet, and on a swabbing test made 25 bbls. of oil per hour and 200 bbls. of water. It may be completed at this depth. It is an offset on the south to Humble's No. 1 Hardin which was abandoned.

In the Jal area, Continental Oil Co.'s No. 1-A Wells, SW NE NW Section 12-25-36, joint with California Co., which last week was reported showing for a producer at 3,408 feet, total depth, is running 2½-inch tubing with bottom hole choke and will run rods before testing. E. B. Guess' No. 1 Conditt, C SW SW Section 12-25-36, is bottomed at 530 feet and has completed derrick for rotary tools.

In the Lea area, Texas Co.'s No. 3-A Lynch, C NW NE Section 34-20-34, is shut down at 2,435 feet in salt for engine repairs, and Cranfill & Reynolds' No. 4 State, C Lot 10, Section 2-21-33, is drilling at 490 feet in red rock.

In the South Eunice area, Carter and Continental Oil companys' No. 1 State, C NE NE Section 28-22-35, has rig up and is completing water well at 1,003 feet.

Eddy County

R. D. Compton's No. 4 Brainard, SE SE Section 5-18-27, southwestern Artesia district, is drilling at 2,415 feet in lime. C. H. Lockhart and others' No. 2 Root, C SW SW Section 7-17-30, Maljamar area, bottomed the salt at 525 feet, topped the anhydrite at 965 feet and is drilling at 995 feet in anhydrite. Western Drilling Co.'s No. 2-A Green, C SW NE Section 29-17-29, Jackson area, is drilling at 1,855 feet in anhydrite, and Flynn, Welch & Yates' No. 64 State, SE NE NW Section 10-19-28, Artesia area, is drilling at 2,290 feet in lime. Ralph Spearow and others' No. 1 McClellan, SW NW NE Section 22-22-23, Indian Creek, is drilling at 2,725 feet in black lime.

Chaves County

Warman's Oil Trust's No. 1 Weldon & Hoar, NW cor. SE Section 9-14-25, Blackdom district, is drilling at 1,100 feet in lime.

Bernalillo County

Norins Realty Co., Inc.'s No. 1 Pajarito grant, NW cor. NE Section 22-9n-1e, southwest of Albuquerque, is drilling at 5,104 feet in lime.

Guadalupe County

Anton Chico Development Co., Ltd.'s No. 1 Anton Chico, NE cor. SW Section 20-9n-17, is drilling at 2,537 feet in shale.

San Miguel County

Duesenberg Oil Co.'s No. 1 Kroenigs, Section 27-18-18, southwest of Watrous, is reported an abandoned location. A steel derrick, two boilers and two tanks were up.

Santa Fe County

Kelsey Clients Development Estate's No. 2 State, C NW Section 22-10-10e, Crow Butte district, is drilling at 790 feet.

Torrance County

J. E. Williams' No. 1, Section 22-4n-12, is reported shut down at 425 feet.

McKinley County

Status of K. B. B. Corp.'s No. 1 Bouton, C NW NE Section 14-14-10w, Ambrosia Lake, reported a location for a test to the Pennsylvanian, appears to be in doubt. This is an old well drilled to 1,300 feet by S. Wysart, which recently was reported acquired by Julius Beck and associates. Miss Dysart claims title to the lease and a lien on the personal property now in litigation.

Valencia County

The Western Natural Resources Corp., Inc.'s No. 2 San Clement, SW cor. NE Section 5-6n-1e, De Chaves district, is drilling at 4,660 feet and carrying considerable water.

San Juan County

R. C. Oswell's No. 4 Permit, Section 33-30-11w, Aztec district, has derrick completed. No. 3, completed some time ago, was a 25-bbl. well.

COLORADO

Rio Blanco County

The California Co.'s No. 1 California-Raven, NW SE Section 30-2n-102, Rangely Dome, which last week was reported flowing 20 bbls. per hour from a total depth of 6,315 feet with the tubing at 2,700 feet, following a shot with 700 quarts, was again shot this week with 600 quarts. The hole will be cleaned out with rotary and tubing run and a test made.

Moffat County

Mountain Fuel Supply Co.'s No. 2 Florence Wilson, C NE NE Section 22-12n-100, Hiawatha Field, is drilling at 2,588 feet. Same company's No. 1 Wheeler, SE NW NW Section 30-12-100, on the Bartram, or West Hiawatha Dome, has rig up, and its No. 1 Hatch, C NW SW Section 9-11n-101, Sugarloaf Dome, cemented the 15½-inch at 200 feet.

The Rocky Mountain Gas Co.'s No. 1 Eberle, SE SW SE Section 9-6n-91, Craig Dome, cemented 12½-inch at 350 feet. It is headed for a gas sand in the lower Mesa Verde at 2,800 feet.

Routt County

The first activity in the Tow Creek Field for some time was reported this week when Oliver Oil Syndicate made a location for its No. 2 State, SE SE NW Section 18-6n-86, an offset to a producer. It is scheduled to spud in a 15-inch hole about August 1.

Jackson County

Ute Oil Co., of which J. H. Schultz is president, has taken over block held by Walden Oil Co. on the South McCallum Dome, including its No. 1 Mosman, C SW SW Section 33-9n-78, which has been standing at 325 feet since last fall. Contract calls for 5,000 feet, if necessary. A string of 15½-inch will be run to shut off water.

Larimer County

C. Leonard Smith's No. 2 Union Pacific, SW cor. Section 31-12-69, Sand Creek, is resuming at 615 feet and will run 6¼-inch to bottom to carry.

Boulder County

Consolidated Smelting & Metals Co.'s No. 1 Blubaugh, SE cor. Section 20-3n-70, Lyons district, is bottomed at 840 feet in hard lime and is reaming to bottom after pulling 4¾-inch. There has been no increase in the shows of oil encountered at 810 feet.

Park County

South Park Oil Co.'s No. 1 Milligan, NE cor. SE Section 13-8s-76, Jefferson district, is cleaning out at 3,042 feet after mudding 4¾-inch. South Park Oil & Gas Co.'s No. 1 Esche, SE cor. NW Section 5-9s-76, Como district, got hold of the five joints of pipe at the bottom and lifted the string, with tools in it, 30 feet. This brought it up even with the Muddy sand which had a show of oil and gas on the way down. Water began to rise in the pipe and flowed over the top for half a day when it was shut off by cavings at 2,300 and 1,500 feet. Part of the 8¼-inch was then rerun to clean out. It is planned to make a test of the Muddy before going deeper.

Las Animas County

Continental Oil Co.'s No. 1 Maxwell grant, NE NW NE Section 29-34-68, Tercio Dome, set 62 feet of 12½-inch and is drilling at 85 feet.

Prowers County

Shastatex Oil & Gas Co.'s No. 1 Lotus Oil, NW NE NE Section 15-23-46, Lamar district, ran the 12½-inch to 865 feet to shut off heavy water encountered at 545 feet, and is drilling ahead.

Delta County

Crawford Oil & Gas Producing Co. has made two locations in the Crawford district, in its No. 3 Pipher, C NW SW Section 36-15s-92, and No. 2 Young, C NW SW Section 32-15-91. Both are near a well drilled to 970 feet, 75 feet in the Dakota, in the same company's No. 1 McKissen, SW cor. NE Section 28-15-91, which had a small show of gas and no water in the top of the Dakota.

WYOMING

Natrona County

Empire State Oil Co.'s No. 17, NE Section 12-33-83, Poison Spider Field, is estimated good for 15 bbls. per day from the Embar sand at a total depth of 1,468 feet. It topped the sand at 1,333 feet.

Mutual Oil Syndicate's No. 2 Boyer, NE SW NE Section 23-35-79, Midway Dome, a core test, is drilling at 1,935 feet. The first marker encountered indicates it is running 22 feet higher than the discovery well 1,300 feet to the northeast and 14 feet higher than No. 1 Boyer, in between the two. The discovery well has produced 71,000 bbls. from the Wall Creek to date. The core tests are being drilled with holes large enough to continue to the Muddy when the subsurface geology gives the desired information as to the best location for another deep well.

Niobrara County

Argo Oil Co.'s No. 1 Elliott, NW cor. Section 5-35-65, Lance Creek Field, which was completed as a 6,000,000-foot gasser in the second Dakota two years ago, is being deepened to the Lakota. Total depth is 3,189 feet and it is fishing for underreamer lug. The Argo company recently transferred to the J. M. Huber Corp., which operates a carbon black plant in the field, the E half, SW Section 27-36-65, upon which are located two gas wells. The company is preparing to clean out and deepen one of these wells.

Weston County

Two new operations were reported in the Osage Field. Albert Jones' No. 4, C SW NE Section 21-46-63, is drilling below 200 feet, and the other is the Yellowstone Oil Co.'s No. 4 Butcher, N NW Section 23-46-64, which is drilling below 600 feet.

Rose & Herbison's No. 1, NW NE NE Section 13-46-64, is drilling below 1,260 feet, and Wyoming Oil & Gas Co.'s No. 18, SE NW SE Section 19-46-63, is spudding. Paymac Oil Corp.'s No. 1 Toyne, SE NW NE Section 3-46-64, is waiting for casing at 1,650 feet, and Duluth-Wyoming Oil Co.'s No. 3, SE cor. SW Section 12-46-64, is waiting on cement after setting the 8¼-inch.

Albany County

S. Marvin James & Co.'s No. 1-A Hindry, C SW SW Section 10-13-76, Riverside district, is bottomed at 1,318 feet and fishing for tools.

Carbon County

Mutual Oil Syndicate's No. 9 Dutton Creek, NW NE Section 12-18-78, Dutton Creek, is moving in rotary tools for a well to the Muddy at 4,800 feet. Earl W. Reeder, Inc.'s No. 1 Union Pacific, C SW SW Section 19-20-83, Pass Creek, is drilling at 940 feet. Ohio Oil Co.'s No. 1 Haslett, SW Section 34-23-79, Allen Lake, is coring at 1,230 feet in the Muddy sand.

Sweetwater County

Mountain Fuel Supply Co.'s No. 2 Cappers, SW cor. NW Section 12-19-104, North Baxter Basin, is drilling at 2,800 feet close to the top of the Dakota, and its No. 2 Union Pacific, SE cor. NW Section 21-16-104, South Baxter Basin, is drilling at 1,890 feet.

MONTANA

Glacier County

Another discovery has been made in northern Montana, just a few miles south

of the Canadian boundary in Santa Rita Oil & Gas Co.'s No. 1 Jacobson, C NW NW Section 23-37-5w, 5 to 6 miles southwest of the Border Field in Toole County and about the same distance north of the gas area in the Cut Bank Field in Glacier County. The well was drilled as a joint operation with P. T. Sweeney. It is on the north end of what is generally known as the Hay Lake nose of the Cut Bank structure. No. 1 Jacobson reached a depth of 2,490 feet about a month ago and shut down. It was rumored at the time that the test gave evidence of coming in as a producer and considerable leasing was done. It resumed the past week and showed for 1,000,000 feet of gas in the top of what subsequently proved to be the Stewart sand, the first horizon in the Cut Bank Field. The first show of oil was encountered in this sand at 2,561 feet. The Darling sand was topped at 2,617 feet and the oil started flowing over the top of the derrick. It was then shut in to test before drilling to the bottom of the sand. A late report says it swabbed 90 bbls. the first 24 hours but it is not clear whether this was from the first or second sand.

Farther to the south in the oil area of the Cut Bank district, Dakota-Montana Oil Co.'s No. 1 Haglund, Sr., SW NW NE Section 14-34-6w, was drilled in June 18 and swabbed 134 bbls. in 16 hours. The first oil was encountered at 2,868 feet and it was drilled to 2,883 feet, 2 feet in the Ellis. It is estimated good for 50 bbls., settled production.

Alberta-Pacific Consolidated Oil Co.'s No. 2 Matson, SE NE SW Section 14-34-6w, is shut down at 2,883 feet, and its No. 2 Kiesel, SE cor. NW Section 11-34-6w, is drilling at 800 feet. Montana-Headlight Oil Co.'s No. 1 Williams, NW cor. NE Section 11-34-6w, topped the Colorado at 452 feet and cemented pipe at 507 feet. W. M. Fulton's No. 1 Haggerty, NE cor. Section 16-34-6w, on the west side, is shut down at 2,913 feet fishing for tools.

Hannah-Porter Co.'s No. 1 Britton, NW NE NE Section 23-34-6w, which was estimated at 40 to 50 bbls., but which has been cleaning out after a shot of 160 quarts, cemented the 5½-inch at 2,840 feet. First oil was at 2,850 feet and total depth is 2,893 feet. Santa Rita Oil & Gas Co.'s No. 2 Blackfeet, SE NW Section 15-35-6w, cemented 7-inch on bottom at 2,858 feet and is ready to drill in, and its No. 1 Olson, NE cor. Section 26-34-6w, is standing cemented at 2,834 feet.

R. C. Tarrant's No. 2 Haglund, Jr., C NW SE Section 13-34-6w, is drilling at 1,800 feet, and his No. 1 Hope, C SW SW Section 18-34-5w, is drilling at 1,240 feet. Par Oil Co.'s No. 1 Haines, SE SE Section 2-34-6w, swabbed 280 bbls. in three days and then shot with 70 quarts. Three joints of casing collapsed when shot and swedging is in progress. Total depth is 2,845 feet.

Carbon County

Ohio Oil Co.'s No. 9 Souders, C NE SW Section 2-7s-21, Dry Creek, is drilling out cement at 5,471 feet, total depth, on top of the Lakota.

REPORTS GAIN IN SALES

Sales in the second quarter, if the present volume is maintained, will half the deficit of $205,672 reported for the first quarter for Link-Belt Co., according to George P. Torrence, president, who anticipates a net profit to be shown for the year if an increase in dollar sales only slightly in excess of the improvement in hand materializes.

"Beginning with May," Mr. Torrence said, "sales expressed in dollars began a steady upward treck and when figures for the month were consolidated, a 20 per cent improvement over April was apparent. This improvement has continued into June at slightly accelerated pace."

DR. A. L. BROWNE DIES

Dr. Arthur Lee Browne, 66 years old, a nationally known chemist of Penniman & Browne, Baltimore, Md., chemists, died June 19 at his summer home on the Magothy River, Maryland. He was an authority on petroleum.

Plan to Test Calling Valley Structure for Oil; Lies to the East of Turner Valley District

By VICTOR LAURISTON
Staff Correspondent, Canadian Fields

CHATHAM, Ontario, June 24.—A definite and conclusive test of the oil possibilities of the Calling Valley structure, immediately east of Turner Valley Field, is foreshadowed by arrangements recently made for deepening and completion of Sentinel Oils' No. 1, LSD 15, Section 8-20-2w5. This test has been standing for several years at a reported depth of 5,860 feet. The location is on the east side of Sheep Creek, close to the road between Okotoks and Turner Valley. It has been generally listed as a Turner Valley test, but exact geological information indicates that it is on the Calling Valley structure, a parallel and somewhat deeper structure lying east and northeast of the proven field. It has been regarded as possible that a structure east of the crude naphtha field may be the source from which the lighter hydrocarbons and wet gas of the Turner Valley Field are derived.

Available information indicates that Sentinel's No. 1 started drilling in the Edmonton formation and at 5,850 feet was in a post-Benton horizon. Gas shows were struck at 2,890, 3,580 and 3,980 feet and oil shows were reported at 4,255 and 4,870 feet. A conclusive test may call for 7,000 feet of drilling, this depth however, giving five or six potential oil horizons, including the Madison lime. The hole is reported in excellent shape for deep drilling. Sentinel Oils, Ltd., holds some 400 acres in the immediate vicinity and approximately 4,000 acres on other parts of the Calling Valley structure.

New Tests in South

Several new tests are being started in the far south end of the South Turner Valley area. Sterling Royalties' No. 1, LSD 1, Section 33-18-2w5, has finished cellar, camp buildings and bunk house and is working on derrick and finishing gas and water lines. The heavy duty rotary outfit used for Sterling Pacific's No. 2 is being moved to location.

In Section 28-18-2w5, Kindersley Oils' No. 1 has cellar dug for a test south of Becker Syndicate's No. 2 Anaconda, and a quarter mile west of Merland Oil Co.'s No. 1 producer. C. J. Johnston is moving the steel rig from East Crest's No. 1. In LSD 8, same section, south of Mar-Jon-Freehold's No. 1 producer, Publix Oils' No. 1 is digging cellar. It is understood Union Drilling Co. of Calgary has contract to carry this test into the limestone. It is reported that preparations are being made for a second test on the Anaconda lease. Several other new tests for Section 28 and adjacent areas are forecasted, though definite arrangements have not been completed.

North Turner Valley

In the North Turner Valley Field, Model Oils' No. 2, LSD 16, Section 22-20-3w5, is reported drilling below 5,800 feet, and working in a very hard formation. At this depth the test is 276 feet in the lime. Model's No. 1, a half mile further south, got the lime at 5,800 feet and encountered a good commercial production at 5,905 feet. Model's No. 2, which has been logging higher, has, however, gone much deeper into the lime. Some gas has been encountered and back pressure of 300 pounds has been applied.

Mayland-Royalite Merger

Shareholders of Royalite Oil Co. at a meeting in Calgary are considering a proposal to absorb the Mayland Oil Co. It is thought possible a number of other Turner Valley companies may be merged in the Royalite company in the near future.

Twin River Test

On the Twin River structure, in the border area southeast of Lethbridge, Nordon-Roney's No. 2 Twin River, LSD 11, Section 2-2-20w4, is reported resuming after setting 8⅝-inch casing at 3,777 feet. The test has not checked as high as anticipated in comparison with Parco Oil Co.'s No. 1 Twin River, less than a mile south; but it is somewhat higher, and is thought to be close to the potential producing horizon just below the Ellis-Madison contact. No. 1 Twin River got a small production of high grade crude in this horizon.

Northern Alberta Test

In the Athabaska district, northern Alberta, Athadome Oils' No. 2, LSD 3, Section 15-66-23w4, is reported drilling below 1,780 feet after shutting off water encountered below the oil sand. The well is reported to indicate a production of around 15 bbls. a day of 12.1-degree asphaltic crude from a sand at 1,650 feet. Drilling indicated 50 feet of sand, with some water in the lower portion. The test will be deepened to 1,960 feet where casing will be cemented.

Oil City Test

In the southern foothills, Oil City Royalties' No. 1, Section 30-1-30w4, in the Waterton Lakes Park area, is reported drilling below 400 feet and running two tours. The drill is working in a very hard formation.

E. H. Cunningham Craig, British geologist, recently inspected the drilling operations in connection with investigations he is making of the adjacent Lundbreck area.

Hunter Valley Operations

On the Hunter Valley structure in the forest reserve area west of Olds, Hunter Valley Oil Co.'s No. 1, Township 31-10w5, is drilling below 420 feet, on a wildcat test of acreage located by Campbell Hunter, the British geologist. Mr. Hunter recently made an inspection of the drilling operations. The area has never been tested and the company holds an extensive block.

British Columbia Drilling

In the Sage Creek Field, southeastern British Columbia, Columbia Oils' No. 1 has spudded in for a deep test. Previous drilling on this structure carried to a maximum depth of approximately 3,200 feet has shown encouraging indications of gas and light crude oil, but it is planned to carry the Columbia test to a possible depth of 4,500 feet. The work is in charge of George W. Brake, general manager. A standard drilling outfit is being used for the first 700 feet, after which a special type of diamond drill will be used. David and Alex Holmes and Frank Racher of Petrolia recently joined the drilling crew.

New Test in Manitoba

The southwestern portion of Manitoba, tested last year by Commonwealth Petroleums, Ltd., of Calgary, is being given a further test by Lisgar Oil & Gas Co., which is starting operations south of Lariviere. The company holds leases on 20,000 acres and is reported to have recruited drillers from Texas. The location is in approximately Section 3-2-9w1 and not far from Commonwealth Petroleums' No. 2 in LSD 2, Sertion 26-2-9w1. Two tests drilled by Commonwealth Petroleums, Ltd., of Calgary in this area got some gas in the upper sands, No. 2 being abandoned in the Precambrian at 2,639 feet. It is understood location of Lisgar's No. 1 was based partially on information supplied by the logs of the Commonwealth wells.

Unity Valley Operations

In the Unity Valley area, western Saskatchewan, Golden Ridge Oil & Gas Co. headed by R. H. Breckon of Calgary has taken over the old Unity Valley Oil Co.'s No. 1 in SE Section 23-41-24w3. The well, which was originally drilled to about 3,000 feet, has been standing for some years. It encountered a good gas show at 1,470 feet, this gas being mudded off with rotary and then cemented off when a string of 8-inch casing was set. The well has been opened with a view to recovering the gas flow, and a fair gas production has been secured. The company is considering the drilling of a second test with the gas horizon as a primary objective, gas from Unity's No. 1 to be used to fire the boilers. If sufficient production is developed, gas may be piped to Battleford and Saskatoon.

Saskatchewan Gas Test

In southwestern Saskatchewan, Twin Cities Oil Co. is preparing to drill a test for gas near Cummings, a short distance east of the Many Island Lake area in southeastern Alberta. The company, headed by M. Hatch, secured acreage last year. Location for No. 1 test has been made south of Cummings, close to the Alberta - Saskatchewan boundary. Mr. Hatch was one of the pioneers in the Shelby area and associated with R. H. Breckon of Calgary in the drilling of the old B. & H. No. 1 well which opened the Cut Bank Field.

The area being tested is about 10 miles east of the Many Island Lake district, where considerable drilling has been done. The area, taking in portions of Townships 13 and 14, Range 1w4, is northeast of Medicine Hat and close to the interprovincial boundary. Four wells drilled within an area of 4 square miles encountered gas, with some traces of oil. These wells are capped for lack of a market, but considerable gas is escaping. The operators were primarily interested in oil, and when this was not met in commercial quantities drilling was abandoned. Gas is also reported to have been struck some years ago in a well a few miles north of Cummings. Twin Cities Oil Co. is primarily drilling for gas, commercial production being anticipated at around 1,500 feet. There are potential markets for the production at Maple Creek, Moose Jaw, Regina and intervening points. Drilling is expected to start this summer.

Drilling in Ontario

In the Dover Field, Kent County, Ontario, Raleigh Development Syndicate's No. 1 Stevens, Lot 2, front concession, Dover Township, got the top the Trenton limestone at 2,885 feet. This is stated to be the first cementing job in Ontario, about 30 feet of cement being used. The test is expected to get the first gas show about 85 feet in the Trenton.

In the Olga gas field, Raleigh Township, Olga Oil & Gas Co.'s No. 6 has been tentatively located south of the discovery well in Lot 20, Concession 9. Southern Ontario Gas Co. is stringing pipe for a 4-inch line to deliver gas from the Olga wells to the Southern Ontario's main transmission line.

The Salina Oil & Gas Co., Ltd., has been incorporated at Chatham, to take over the Glenwood Syndicate. Officers are, president, B. H. Harrison; secretary, Reg Appleyard; directors, Dr. A. A. Hicks, F. Rowe, Leo Wildgen, Frank Murray; solicitor, Morice Smith.

Meters for Turner Valley

A general installation of meters is in

progress throughout the Turner Valley Field, as a result of a recommendation of the Turner Valley Gas Conservation Board.

Some 110 members of the Pan-Pacific Scientfic Congress made a motor trip on June 19 to the Turner Valley Field, as guests of the city of Calgary.

Kansas Fields

(Continued from Page 48)

2,900 feet. Palmer and others' No. 1 Winn, NW cor. SW NW Section 7-20-1w, an old well drilling deeper, drilling at 3,035 feet. Stanolind Oil & Gas Co.'s No. 4 Zerger, SW cor. NW SE Section 16-21-3w, made 590 bbls. from 3,446-49 feet. Lario Oil & Gas Co.'s No. 4 Grat-ton, NE cor. SE SW Section 24-19-2w, made 788 bbls. from 3,382-3,400 feet.

Reno County

Olson Oil Co.'s No. 1 Zeiderfeld, C SW SE Section 27-23-4w, is a location. Same company's No. 2 Adkins, C SW SW Section 35-23-4w, made 70 bbls. from 3,-355-75 feet.

Sedgwick County

Cavall and others' No. 1 Kagey, SW cor. NE SW Section 15-25-1, is a location.

Sumner County

Gypsy Oil Co.'s No. 3 Enderud, NE cor. SE Section 17-35-3w, made 600 bbls. a day from 4,786-87 feet.

Wildcat Operations in Southwest Texas

(Continued from Page 50)

R. S. Boling's No. 1 J. J. Appelt, 150 ft. from N and W lines of tract in M. Uriegas Sur. ..... T.D. 830 ft; resumed drlg. after installing rotary.

E. R. Byrd's No. 1 W. H. Russell, 750 varas from NE line, 54 varas from NW line of Fernandes Rodriguez Sur. ..... T.D. 1,380 ft; abd.

C. J. LeCompte's No. 3 R. Diaz ..... T.D. 1,209 ft.; rigging up to deepen.

Austin Hull's No. 1 Classen, 268 ft. from W line, 2,500 ft. from S line of tract, 12 miles N of San Antonio. T.D. 1,810 ft; trying to run csg.

M. L. Howard's No. 1 James Watson, 500 ft. from W line, 2,000 ft. from S line, Sec. 16, B. Martinez Sur., 12 miles S from San Antonio ..... T.D.2,535 ft; trying to put it on the pump.

C. J. LeCompte's No. 4 R. Diaz, 324 ft. NE from No. 1. T.D. 320 ft; S.D.

LaSalle Oil Co.'s No. 1 City Sewage farm, 150 ft. S of Rilling Road, 450 ft. W of NE cor. of tract in D. Bustillos Sur. ..... T.D. 55 ft.; setting surface csg.

Magnolia Pet. Co.'s No. 1 Duval County Ranch Co., 330 ft. from S and E lines of NE of Sur. No. 363..... T.D. 2,232 ft; tested 7 joints oil in 15 min.; setting csg.

Motes-Campbell's No. 2 Pruitt, 300 ft. N of No. 1 on 187-ac. tract, McCullough County Sur., Blk. 4,299.... T.D. 1,367 ft; drlg.

O. L. Ray's No. 1 Thos. Dillon, 4,500 feet from NW line, 1,750 ft. from most southerly SW line of de Luna grant in southern part of county ..... T.D. 630 ft; standing.

J. Morgan Russell's No. 2 Brotze, 200 ft. W of No. 1, in Cordenas Sur. ..... T.D. 340 ft.; standing.

Burl S. Post's No. 1 Bilhartz, 1,265 ft. from W line, 2,169 ft. from S line of 385-ac. tract in F. Rolen Sur. No. 48 ..... T.D. 784 ft; abd.

C. A. Smith's No. 1 Henry Lamb, 750 ft. from N and E lines of Lamb farm, in de la Garza grant ..... Spudded in and waiting for heavier rig.

F. E. Tegler's No. 1 Brackenridge, 578 ft. from S line, 2,284 ft. from W line of tract in Maria Gertrudis de Alaniz Sur. ..... T.D. 670 ft; drlg. 10 ft. in shell.

Tipton's No. 1 Gembler, 514 ft. from W line, 616 ft. from N line of 120-ac. tract in M. Gotari Sur. ..... Spudded in.

BLANCO COUNTY

Blanco Development Co.'s (McGee) No. 1 A. J. Dittmar, 1,320 ft. from S line, 150 ft. from W line of George Evans Sur. No. 58, 4 miles NW of Johnson City ..... T.D. 350 ft; drlg.

C. L. McLeary's No. 1 Mier, 600 ft. from SW line, 1,-600 ft. from SE line of George Scheuing Sur. No. 154. T.D. 860 ft; S.D. in lime.

Isham et al's No. 1 Lester ranch, 200 varas from N and E lines of Antonio Bandrand Sur., 8 miles NE from Johnson City ..... T.D. 100 ft.; drlg.

CALDWELL COUNTY

Cargill et al's No. 1 Brown, 1,600 ft. from E line, 330 ft. from S line of C. E. Brown 112-ac. tract, Dillard Cooper Sur. ..... T.D. 897 ft.; drlg.

De-Tex Oil Co.'s No. 1 Louis Rogers, 900 ft. from NE line, 400 ft. from SE line of 73-ac. tract in A. Floyd Sur. ..... T.D. 2,525 ft.; drlg.

E. L. Hope and Joe Cole's No. 1 Mike August, 150 ft. from NE line, 165 ft. from NW line of tract ..... T.D. 1,578 ft.; drlg.

F. L. Thompson's No. 1 C. A. Lawler, 5,400 ft. from NE line, 6,300 ft. from SE line of James Berry Sur. T.D. 2,384 ft.; in Georgetown.

DE WITT COUNTY

L. G. Wade's No. 1 fee, 6 miles S from Yoakum .. .... T.D. 2,117 ft.; drlg.

DUVAL COUNTY

Brooklyn Oil Co.'s No. 1 G. W. Sutherland, 2,100 ft. from W line, 1,923 ft. from S line of Sur. No. 187, G.B.&C.N. R.R. ..... T.D. 2,458 ft; comp. 50,000,000 ft. gas, spraying oil.

Clark & Miller's No. 1 R. Lopez, 150 ft. from N line, 330 ft. from W line of Sur. 141, S. C. I. Co., 8 miles SW from San Diego ..... T.D. 1,730 ft; drlg.

M. J. Coffey's No. 1 Parr, 591 ft. from W line, 270 ft. from N of NW cor. of Sec. 2, located in Sur. 27 ..... T.D. 1,710 ft; repairing hole.

Coronado Oil Co.'s No. 1 Wood-Welder, 1,980 ft. from W line, 950 ft. from N line of Sur. No. 211 ..... T.D. 2,500 ft; P.B. to 2,160 ft.; comp. 10,000,000 ft. dry gas.

DeLange & Snider's No. 1 Sanchez, 330 ft. from N and E lines of 80 acres in Blk. 35 of Sur. No. 197 ..... T.D. 2,600 ft; drlg.

Frank Gravis' No. 3 Schallert, 2,300 ft. from E line, 800 ft. from N line, Sur. 255 ..... T.D. 2,385 ft; abd.

Huff et al's No. 1 A. Roach 685 ft. from E line, 49 ft. from S line of Blk. 7, Sur. No. 457 .. .. T.D. 200 ft.; spudded in

Magnolia Pet. Co.'s No. 1 Duval County Ranch Co., 330 ft. from S and E lines of NE of Sur. No. 363 ..... T.D. 2,232 ft; D.S. test volume of gas and 7 joints oil; setting csg.

G. G. Mortimer's No. 1 Peal, 330 ft. from S and W lines of Sur. No. 793 ..... T.D. 2,214 ft; drlg.

William B. Stewart's No. 3 Duval County Ranch Co., 300 ft. from E line, 330 ft. from W line of S half of SE. Sur. 363 ..... T.D. 182 ft; standing.

Whisenant & Trenchard's No. 2 Duval County Ranch Co., 300 ft. from N and W lines of E ½ of SE ¼ of Sur. 76 ..... T.D. 20 ft; set surface csg.

Windsor Oil Co.'s No. 1 Peters, 330 ft. from E line, 2,904 ft. from S line of W ½ of S (or 1,600 ft. to N 2,900 ft. to W of Sur.) No. 32..... T.D. 2,127 ft; running D.S.

Wright & Wilson's No. 1 Wood-Welder, 6,150 ft. from N line, 7,200 ft. from W line of Sur. No. 102 ..... T.D. 150 ft; derrick.

FRIO COUNTY

Hardy Roberts' No. 1 Burns, Sur. No. 123 ..... Spudded in.

GOLIAD COUNTY

Gillett Oil Co.'s No. 1 Lackey & Weldon, 3,000 ft. NE of Humble test 3 years ago ..... Rigging up.

GUADALUPE COUNTY

J. E. Clark's No. 1 Fritz Drieboldt, 3,000 ft. from NW cor. and 1,900 ft. from N line of John Jones Sur. No. 1 ..... T.D. 1,050 ft.; in Edwards.

J. A. Harper's No. 1 Rosenbrook, near New Berlin..... Setting up.

HIDALGO COUNTY

Carl & Johnston's No. 1 Doughty, 187 ft. from S and E lines of Lot 11, Blk. 5 of Subd. of Indios Ranch Sur. in N. Hidalgo ..... T.D. 2,866 ft; cored gas sand 2,-746-55 ft.

Maxwell & Young's No. 1 King, 175 ft. from N and E lines of Lot 3, Blk. 14, Alamo tract ..... T.D. 125 ft; standing in quicksand waiting for csg.

JIM HOGG COUNTY

D. C. DeWitt's No. 1 A. G. Lopez, 3,475 ft. from W line, 425 ft. from N line of Sur. No. 106 ..... T.D. 1,650 ft; standing.

R. F. Foree's No. 1 Holbien, 150 ft. from N and W lines of Blk. 54, Sec. 9 of Holbien Sur. of Share 3 of Las Animas grant ..... T.D. 2,786 ft; tested S.W.; standing.

Seaton A. Barnes, Jr.'s No. 1 R. Holbien, 220 ft. from W line, 340 ft. from S line, of Blk. 54, share 3, Los Animas tract ..... T.D. 1,665 ft.; drlg.

Shankle et al's No. 1 Thompson, Blk. 19, Share 2, Las Animas grant ..... T.D. 725 ft; drlg.

KENDALL COUNTY

E. W. Martin's No. 1 Houston, in F. Wright Sur. ..... T.D. 700 ft; fishing.

KERR COUNTY

J. E. Anderson's No. 1 J. D. Witt, 1,320 ft. from N line, 1,320 ft. from W line of Sec. 1,923, in Hamilton Sur., 4 miles S of Center Point .. .. T.D. 1,418 ft; S.D.

W. E. Clark's No. 1 Love, 660 ft. from N and W lines of Mrs. Cassandra Winn Sur. No. 1,759 ..... Rigging up.

Eastland Oil Co.'s No. 1 Love, 1,100 ft. SW of Evans & Gant's No. 1 Love ..... T.D. 2,480 ft; U.R. 8-in.

KLEBERG COUNTY

Harry Clark's No. 1 V. J. Kivlin, 360 ft. from E line, 400 ft. from S line of Sec. 39, Blk. 8, Kleberg Town & Improvement Co. Sur. ..... T.D. 1,600 ft; S.D.

Harris et al's No. 1 Dennett, 660 ft. from S line, 760 ft. from E line of Blk. 7, Sec. 38, Kleberg Town & Improvement Co. Sur. ..... T.D. 3,100 ft; S.D.

LA SALLE COUNTY

C. B. Bunte's No. 1 Mrs. T. A. Coleman, CNL NE Sec. 68, Poitevant Sur. ..... Derrick.

E. O. Mead's No. 1 Los Angeles Townsite Sur. No. 38 .... T.D. 2,185 ft.; drlg.

W. H. Wallace's No. 1 H. C. Yeager, 150 ft. from S and E lines of Sur. No. 95 ..... T.D. 927 ft; standing.

LAVACA COUNTY

Plymouth Oil Co.'s No. 1 Fehrenkamp, SE cor. of 202.8-ac. tract in Moses Mitchell Sur. .. .. T.D. 3,095 ft; drlg.

LEE COUNTY

Paton Bros.' No. 1-B Turner, 424 ft. from NW line, 375 ft. from NE line of 51.9-ac. tract in David Hudson Sur. ..... T.D. 6,626 ft; tested dry.

LIVE OAK COUNTY

Coquat, O'Neill & Phillips' No. 3 Sanger, 2,930 ft. from SW line, 320 ft. from SE line of Sur. No. 350..... Rigging up.

S. R. C. Oil Co.'s No. 1 Nichols, 6,400 ft. from SW cor. and 1,150 ft. NE at right angles in Simeon Ryan Sur. T.D. 1,130 ft; drlg.

Whitfield's No. 1 Terrell, David O'Boyle Sur., 5 miles NW from Three Rivers ..... T.D. 920 ft; coring.

McMULLEN COUNTY

Boysen & Hotchkin's No. 1 Hagist, 1,650 ft. from W line, 990 ft. from N line of 160-ac. tract in G. B. Kinney Sur. No. 3 ..... Moving in tools.

Darby Oil Co.'s No. 1 Sling, 150 ft. from S and E lines of NE of B.S.&F. Sur. No. 111 ..... T.D. 1,706 ft; drlg.

Donald Lain's No. 1 Two Rivers ranch, 800 ft. from E line, 1,200 ft. from S line of SE Sec. 25, Two Rivers Ranch Subd. of Live Oak County School land ..... Moving in rig.

C. R. Pope, Inc.'s No. 1 A. C. Miles, 200 ft. to E line, 2,275 ft. to S line, Sur. 149 ..... T.D. 2,165 ft.; drlg.

V. G. Schimmel's No. 2 H. F. C. Wulf, 150 ft. from S line, 660 ft. from W line of W½ NW Sec. 72, of Two Rivers Ranch Sur. ..... T.D. 800 ft; drlg.

S. R. C. and Sinclair Prairie's No. 2 LaChusa, 330 ft. from S and E lines of NW Sec. 36, Sur., 2 miles E from No. 1 ..... T.D. 2,539 ft; drlg.

Shumway et al's No. 1 Wulf, Sur. 4 miles SE from No. 2 Shiner, 1,730 ft. from S line, 167 ft. from W line of Steinhardt Sur. No. 190 ..... Spudded in; set 1 joint surface csg.

Whitfield's No. 1 Jacob, 1,335 ft. from S line, 355 ft. from E line of NE Sec. 9, of Jacob ranch, T.&N.O. R.R. Sur., 1 mile NW from Jacob Pool ..... T.D. 934 ft.; reaming to set csg.

SAN PATRICIO COUNTY

George W. Scruggs' No. 1 Collins, 1,040 ft. from NE line, 700 ft. from SE line of Blk. 36, E. J. McGloin Sur. ..... T.D. 2,756 ft; changing to heavier rig.

STARR COUNTY

S.&B. Oil Co.'s No. 1 Crown Brick & Tile Co., 1,800 ft. S of State Highway No. 4 and 580 ft. from W line of Porcion 87, near La Puerta ..... T.D. 4,560 ft; fishing for 320 ft. D.S.

W. P. Chancellor's No. 1 A Guerra, 26,000 ft. from S line, 2,600 ft. from E line of Share No. 6 of San Jose Grant Sur., NE cor. of county ..... T.D. 1,410 ft; drlg.

Chiquita Oil Co.'s No. 1 Starr County Cattle Co., 341 ft. from W line, 371 ft. from S line of Share 60, Partition of Porcions 88 and 89 ..... T.D. 618 ft; drlg.

F. R. Cooper's No. 1 J. M. Martinez, 150 ft. to S and E lines of A.B.&M. Sur. No. 136 ..... T.D. 2,280 ft; standing.

F. Davenport's No. 2 fee, 660 ft. from SE line, 250 ft. from SW line, Sur. 33 of C. O. Newman Subd. of El Benadito grant ..... T.D. 500 ft; standing.

Dawson et al's No. 5 Margo, 1,000 ft. from W line, 5,-500 ft. from S line of Share 3-B, Por. No. 70, jurisdiction Mier ..... T.D. 500 ft; standing.

Great Plains Oil Co.'s No. 2 Sanchez, 2,050 ft. from S line, 1,645 ft. from most westerly W line of Sur. No. 344 ..... T.D. 920 ft; testing.

Jeffries and Lambeth Drlg. Co.'s No. 1 Starr County Cattle Co., 11,572 ft. from N line, 2,490 ft. from E line of Porcion 89, Sur. jurisdiction Camargo, 8 miles NE from Rio Grande City ..... T.D. 2,290 ft; resuming.

E. H. Stickney's No. 1 R. Gonzales, 300 ft. from E line, 3,166 ft. from S line of H.E.&W.T. Sur. 339.... T.D. 1,100 ft; drlg.

Sun Oil Co.'s No. 1 Guerra, 1,140 ft. from W line, 6,-955 ft. from S line of 1,360-ac. tract in Share 14-B of Las Quevitasb grant ..... T.D. 2,213 ft; put in separator; made 2 bbls. oil hourly and 17,-000,000 ft. gas.

Goodwain & Yantis' No. 1 Seabury, 150 ft. from S and W lines of Sec. 107, Share No. 1, Porcion No. 107.. T.D. 900 ft; drlg.

UVALDE COUNTY

Frank A. Brown's No. 1 J. A. Milliken, 1,800 varas from W line which is Sabinal River, and 108 varas from S line of Antonio Cruz Sur. No. 383 ..... T.D. 100 ft.; standing.

Evans & Thompson's No. 1 Farris, 400 ft. from S and W lines of 635-ac. tract near center of John J Hammond Sur. ..... T.D 380 ft; changing rigs

WEBB COUNTY

Edwin M. Jones' No. 2 Callaghan, 330 ft. from S and E lines of C.C.S.D.&R.G.N.G. R.R. Sur. No. 1,211.... Rigging up.

J. W. Edwards' No. 1 Boltz, 1,170 ft. from S and E lines of Sec. 55, Blk. 3, C.C.S.D.&R.G.N.G. Ry. Sur... T.D. 600 ft.; drlg.

O. W. Killam's No. 1 V. Pena, Sur. Ratones ranch Dolores Subd. Borrego grant ..... Spudded in.

Shankle & Roche's No. 1 W. W. Stell, 660 ft. from N and W lines of NW NW of No. 37 Sur., 11 miles N from Mirande City ..... T.D. 2,500 ft.; S.D. at contract depth.

Will Ohlhausen's No. 1 Moses Jones, 273 varas from E line, 516 varas from S line of 100-ac. tract in Sur. No. 1,840 ..... T.D. 850 ft; drlg.

WILLIAMSON COUNTY

Bob Fallin's No. 1 Polzin, 1,000 ft. from N and E lines of Jacob Sapington, NE from Round Rock ..... T.D. 1,855 ft.; in Edwards; S.D.

WILSON COUNTY

Humble Oil & Refining Co.'s No. 1 Hardy, 607 ft. from S line, 466 ft. from E line of Hardy 65-ac. tract in Joseph Reynolds Sur. ..... T.D. 1,668 ft; drlg. hard sand.

Sexton Pet. Co.'s No. 1 Joe Gutzeit (1,032-ac.), 150 ft. from W line, 150 ft. from S line of road of F Flores No. 18 Sur. ..... T.D. 175 ft; drlg.

ZAPATA COUNTY

Hamilton, Brower & Crow's No. 1 Slator, 2,111 ft. from SW line, 1,980 ft. from SE line of Blk. 1, Subd. of Slator ranch in J. V. Borrego grant ..... T.D. 1,278 ft.; laying water line.

Circle W. Oil Co.'s No. 1 M. Garza est., 622 ft. from NW line and 699 ft. from SW line of Blk. 30, C. A. Douglas Subd. of Charco de la India grant ..... Rigging up.

O. W. Killam's No. 1 V. Pena, 1,350 ft. from N line, 4,790 ft. from W line of Ratones ranch subd. of Borrego grant ..... T.D. 1,037 ft.; drlg.

Sarah Poppas' No. 1 Juan V. Cueller, Jr., 150 ft. from NE and SE lines of Blk. 3, Sur. 2 of Poppas Subd. of Por. 34 ..... T.D. 650 ft; drlg.

A. C. Savey et al's No. 1 Flores, 150 ft. from NW line, 206 ft. from NE line of Blk. 8, Share 1 of P. A. Richer Subd. of Porcion No. 36 ..... T.D. 2,404 ft.; drlg.

Stevens & Brown's No. 1 Alexandro Garcia, 660 ft. from SW line, 660 ft. from NW line of Blk. 5, Stevens & Brown Subd. of W 700 acres, Charco Redondo grant, A. Garcia tr. 16 miles SE of Zapata ..... T.D. 750 ft; drlg.

A. H. Wray's No. 1 Gopher Trust Est., in Fullerton Subd. of Share 8 of J. V. Borrego grant ..... T.D. 370 ft; set csg; W.O.C.

ZAVALA COUNTY

Zavala O. & G. Co.'s No. 1 Gates, 1,320 ft. from N line, 1,320 ft. from E line of Hooper & Wade Sur. No. 13 T.D. 6,018 ft; drlg.

Southwest Texas Proven Areas

Week Ending June 24

HILBIG POOL—BASTROP COUNTY

Company, well, farm name, section and block—	Remarks
Humble Oil & Refining Co.'s No. 3 Annie Hassler, 295 ft. from W line, 1,205 ft. from S line of Wolfensbarger Sur.	T.D. 723 ft; drlg. shale.

RIDDLE POOL—BASTROP COUNTY

Floyd Dodson's (and Muckelroy) No. 1 Duran, 45-ac., 300 ft. from NE line, 1,440 ft. from SE line of 100-ac. tract, Flynt Sur.	T.D. 400 ft; drlg. sand and boulders.
Marts & Beavens' No. 1-A Riddle (202-ac.)	T.D. 1,810 ft; drlg.
Ogden & Reed's No. 1 Talley, 150 ft. from NW line, 1,350 ft. from SW line of John Maxmillan Sur.	T.D. 2,127 ft; flowing by heads.
Ogden & Reed's No. 1 C. L. Riddle	T.D. 1,730 ft; drlg.

TULETA POOL—BEE COUNTY

Grisham et al's No. 1 Rapp & Hatch, 1,700 ft. from N line, 2,640 ft. from E line, Sec. 12 of Ragsley's Subd. of Uranga grant	T.D. 2,300 ft.; drlg.

ECKERT POOL—BEXAR COUNTY

J. F. Harrison's No. 1 F. Gembler, 150 ft. from NW line, 460 ft. from NE line of 33-ac. tract in J. Montez Sur.	Spudded in.
C. W. Richards' No. 9 Halbardier, 32-ac. Sur., SW cor. of J. M. Peres Sur. No. 57	T.D. 715 ft; comp. 4 bbls.

COYLE-CONCORD POOL—COLORADO COUNTY

Humble and Coyle-Concord's No. 1, diagonal offset to Plymouth	Rigging up.

EAST COLE POOL—DUVAL COUNTY

Cole & Wise's No. 1 S. Benavides, 150 ft. from SW and NW lines of Blk. 415, Myrtle E. Hale Subd. of Mariana Arispe grant	Rigging up.

NORTH GOVERNMENT WELLS POOL—DUVAL COUNTY

Central Producers, Inc.'s No. 7 Tuck & Johnson, 330 ft. from S and W lines of SE SW of Sur. No. 42	Rigging up.
Hester Bros.' No. 1 fee, 330 ft. from S and E lines of NE of Sur. No. 47	Rigging up.
Humble Oil & Refining Co.'s No. 5 C. W. Hahl, 990 ft. from S line, 330 ft. from W line of E half of Sur. 360	T.D. 1,610 ft; drlg.
Navarro Oil Co.'s No. 12 C. W. Hahl, 330 ft. from E line, 1,016 ft. from S line of W½ of Sur. 360	T.D. 2,294 ft; swabbing.
Reynosa Oil Corp.'s No. 7-A Weil, 60 ft. NE of No. 7	Rigging up.
Southwest Drlg. Co.'s No. 10 Wendt, 990 ft. from N and E lines of SE of Sur. No. 43	Rigging up.
Sun Oil Co.'s No. 4 Weiderkehr, 2,310 ft. from S line, 330 ft. from E line of Sur. 359	T.D. 1,365 ft; drlg.
Texas Co.'s No. 8 Wendt, 1,650 ft. from E line, 990 ft. from N line of NW of Sur. 42	T.D. 2,226 ft; running csg.

SARNOSA POOL—DUVAL COUNTY

Sun Oil Co.'s No. 3 Cano, 330 ft. from NE and SE lines of Sur. No. 576	T.D. 2,420 ft; running liner; had 3 sands at 2,382-92 ft; 2,404-12 ft; and 2,414-19 ft.

PETERS POOL—DUVAL COUNTY

Shasta Oil Co.'s No. 4 Peters, 990 ft. from E line, 330 ft. from S line of Strip Sur. No. 65	T.D. 2,494 ft; tested gas; P.B.; tested 3,500,000 ft. gas; 800 ch. at 2,457 ft.

SANDIA POOL—JIM WELLS COUNTY

Crude Oil Royalty Co.'s No. 1 Allen, 150 ft. from N and E lines of Blk. 2, Subd. of Wade ranch	T.D. 2,648 ft; waiting for csg. and trying to get on bottom; drlg. wtr. well.

JACOB POOL—McMULLEN COUNTY

Loma Oil Co.'s No. 13-A Jacob, 1,320 ft. N, 15 deg. E from No. 13-A	Moving in rig.
Longhorn Oil Co.'s No. 2-A C. T. Lark, in E. W. B. Scrugham Sur.	T.D. 1,020 ft; recmtng. csg.

WENTZ POOL—McMULLEN COUNTY

V. G. Schimmel's No. 2 H. F. C. Wulf, 150 ft. from S line, 660 ft. from W line of W of NW of Sec. 72, Two Rivers Ranch	T.D. 800 ft.; drlg.

ADAMS GAS POOL—MEDINA COUNTY

Yantis Oil Co.'s No. 1-A Adams, skidded derrick few feet from No. 1	T.D. 680 ft; resumed drlg.

KING POOL—NUECES COUNTY

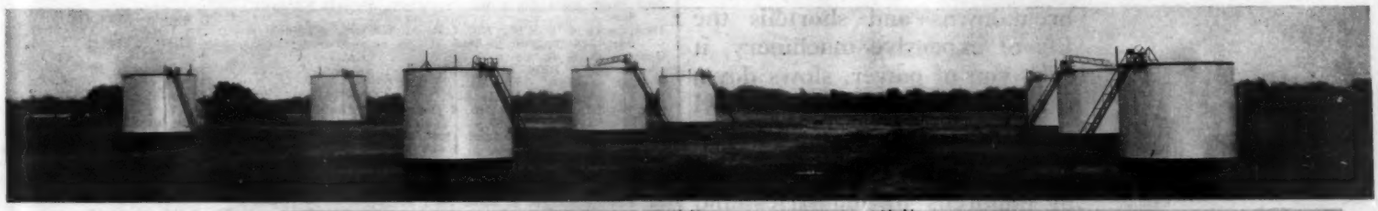
John F. Camp's No. 1 King, 150 ft. from N and W lines of E½ of Sec. 29, of Richard King Subd.	T.D. 3,394 ft; drlg. lime and shale.

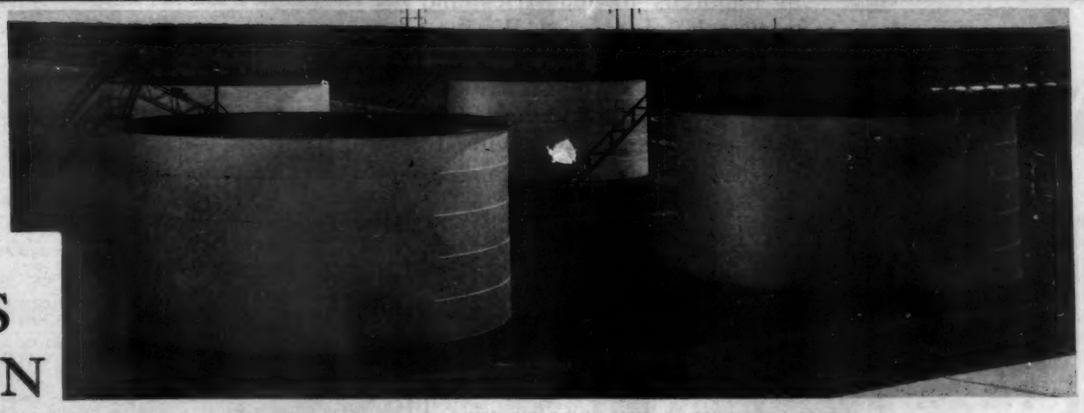
MATHIS POOL—SAN PATRICIO COUNTY

Geo. W. Scruggs' No. 1 Collins	T.D. 2,756 ft.; changed to heavier rig.

LOS OLMOS POOL—STARR COUNTY

Hooks & Weaver's No. 15 Kelsey Bass, 200 ft. from W line, 150 ft. from S line, NW SE Sec. 6, Pors. 75, 76, 77, jurisdiction Camargo	T.D. 2,150 ft; waiting for tools.
Hooks & Weavers' No. 14-A1 Kelsey Bass, 200 ft. from W line, 250 ft. from S line of E 30 acres of NE SW Sec. 6, Pors. 75, 76, 77, Camargo	Drlg. 1,268 ft; moving in larger rig.





Above: Great Lakes Pipe Line station at Okmulgee, Okla. Right: Station at Ponca City, Okla. All tanks are equipped with Wiggins Pontoon Roofs.

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HOUSTON	2919 Main Street	DETROIT	1514 Lafayette Bldg.	BOSTON	1517 Consolidated Gas Bldg.
TULSA	1406 Philcade Bldg.	CLEVELAND	2204 Midland Bldg.	SAN FRANCISCO	1054 Rialto Bldg.
BIRMINGHAM	1536 Fiftieth St. N.	NEW YORK	3147 Hudson Terminal Bldg.	LOS ANGELES	1423 Wm. Fox Bldg.

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LAUREL POOL—WEBB COUNTY

Montex Oil Co.'s No. 1 Laurel, 150 ft. from S and E lines of Blk. 4, Sur. No. 270 ..... T.D. 290 ft; drlg.
Montex Oil Co.'s No. 1 Caltex Royalty Co., 450 ft. from N line, 150 ft. from E line of Blk. 13, Sur. No. 768. T.D. 2,145 ft; bailing.
Montex Oil Co.'s No. 1 Laurel, 150 ft. from NW and SW lines of Blk. 1, Sur. No. 719 ..... Derrick.
Shankle & Newton's No. 1 S. Benavides, 330 ft. from S and E lines of Blk. 13, in No. 2,272 Sur. ..... T.D. 40 ft; set surface csg.; W.O.C.
Texas Unity Co.'s No. 1 Yeager, 1,325 ft. from N and W lines of A.B.&M. Ry. Sur. No. 52 ..... T.D. 1,500 ft; drlg.
Arthur H. Wray's No. 1 Laurel, 600 ft. from W line, 150 ft. from S line of Blk. 5, Sur. 270 ..... T.D. 1,100 ft; drlg.

MOCA POOL—WEBB COUNTY

Moca Oil Co.'s No. 4 Duval County Ranch Co., 810 ft. from N line, 120 ft. from W line of Blk. 32, Share 3, Zapata County School Land ..... T.D. 1,214 ft.; P.B. to 891 ft.
D. R. Semmes' No. 1 Duval County Ranch Co., 510 ft. from N line, 1,690 ft. from E line of Lot 32, League 3 of Zapata County School Land ..... T.D. 891 ft.; standing 700 ft. in oil; going on pump.
D. R. Semmes' No. 2 Duval County Ranch Co., 150 ft. from N line, 1,540 ft. from E line, Lot 32, League 2 of Zapata County School Land ..... Spudded in.
S.R.C. et al's No. 2 Duval Co. Ranch Co., 330 ft. W of No. 1, 150 ft. from S line of lease, League No. 3 of Zapata County School Land Sur. ..... Moving in.

CHAPMAN POOL—WILLIAMSON COUNTY

Deep Pay Exploration Co.'s No. 1 M. V. Lawrence, 237 ft. from W line, 86 ft. from S line of S. Miller Sur. ..... T.D. 2,860 ft.; fishing.

ESCOBAS POOL—ZAPATA COUNTY

The Texas Co.'s No. 29 Measles, 740 ft. from SE line and 17,891 ft. from SW line of Cerrito Blanco grant.. T.D. 1,186 ft; set csg.; W.O.C.

LAUREL POOL—ZAPATA COUNTY

South Texas Oil Co.'s No. 8 Laurel, 540 ft. from S line and 1,103 ft. from W line of Blk. 13, Sur. No. 270 ... Rigging up.

MIRANDO VALLEY POOL—ZAPATA COUNTY

J. W. Edwards' No. 1 R. Hinnant, 150 ft. from SE lines of Blk. 8, Sur. No. 116 ..... T.D. 950 ft; drlg.

Gulf Coast Fields and Wildcats

(Continued from Page 49)

Sinclair-Prairie Oil Co.'s No. 14 Wilbur (W.O.), Henry Griffith League ..... Drlg. shale 4,473 ft.
Sun Oil Co.'s No. 16 Wilburn, Henry Griffith League, 150 ft. W of No. 14 and 50 ft. N of S line ..... Coring oil sand 3,785 ft.
The Texas Co.'s No. 8 Wilburn (W.O.), Henry Griffith League ..... Drlg. shale 5,037 ft.
Yount Lee Oil Co.'s No. 20 Chambers County, Wm. Bloodgood Sur., 350 ft. from NW line and 50 ft. from SW line of lease ..... T.D. 4,782 ft.; sidetracking in hard sand and lime 2,519 ft.
Yount Lee Oil Co.'s No. 21 Chambers County (W.O.), Wm. Bloodgood Sur. ..... Drlg. hard sand and lime 2,267 ft.
Yount Lee Oil Co.'s No. 22 Chambers County, Wm. Bloodgood Sur., 200 ft. from W line, 2631/2 ft. from N line of lease ..... Drlg. salt 2,583 ft.

LOST LAKE—CHAMBERS COUNTY

Pure Oil Co.'s No. 18 Mayes, E. H. R. Wallis Sur., 205 ft. N and 425 ft. W of No. 1 Lost River ..... Bldg. derrick.

RABBS RIDGE—FORT BEND COUNTY

Cullen & West's No. 2 Whitmore, Samuel Kennedy Sur., 476 ft. W of No. 1 and 350 ft. N of S line ..... Comp. 57 bbls. per hour; 5/8-in. choke, 5,395 ft.
Gulf Prod. Co.'s No. 2 Hammerstram, Samuel Kennedy Sur. ..... Drlg. gumbo 2,320 ft.
Humble O. & R. Co.'s No. 1 R. A. Wolters, R. Peebles Sur., 325 ft. from N line, 500 ft. from E line ..... Drlg. shale 5,000 ft.
Humble O. & R. Co. and Gulf Prod. Co.'s No. 8 T. R. Booth, J. Rabb Sur., 885 ft. E of No. 7 ..... Set screen 5,340 ft.
Humble O. & R. Co. and Gulf Prod. Co.'s No. 17-A F. I. Booth, S. Kennedy Sur., 932 ft. E of No. 15 ..... Drlg. shale 4,020 ft.
Humble O. & R. Co.'s No. 8 George, J. Rabb Sur., 1,300 ft. E of No. 7 ..... Stancing 5,410 ft.
Humble O. & R. Co. and Gulf Prod. Co.'s No. 19-A Lockwood & Sharp, J. Rabb Sur. ..... T.D. 5,300 ft.; cmtd. 7-in. csg.; standing because of blowout at No. 14 Lockwood.
Humble O. & R. Co. and Gulf Prod. Co.'s No. 1-C Lockwood & Sharp, J. Rabb Sur., 833 ft. E of No. 17-A L. & S. ..... T.D. 5,300 ft; cmtd. csg.
Humble O. & R. Co. and Gulf Prod. Co.'s No. 14 Lockwood, J. Rabb Sur., 311 ft. from N line, 3,492 ft. from W line ..... T.D. 4,775 ft; blew out and lost hole.
Powers Prod. Co.'s No. 1 Fred Weisse, Samuel Kennedy Sur., 300 ft. N of S line in center E and W of 10-ac. tract ..... Drlg. gumbo 2,335 ft.

HIGH ISLAND—GALVESTON COUNTY

Yount Lee Oil Co.'s No. 3 Broussard, M. Dunman Sur., 150 ft. E of center of W line of tract ..... T.D. 5,475 ft.; sidetracking 5,395 ft.
Yount Lee Oil Co.'s No. 1-B Broussard & Orme, 126 ft. E of center of W line of M. Dunman Sur. ..... Derrick.
Yount Lee Oil Co.'s No. 35 Cade, N. Fitzsimmons Sur., 400 ft. S of No. 34 ..... Drlg. shale 5,597 ft.
Yount Lee Oil Co.'s No. 36 Cade, N. Fitzsimmons Sur., 600 ft. from S line, 240 ft. E of No. 34 ..... Drlg. shale and lime 3,050 ft.
Yount Lee Oil Co.'s No. 16 Smith, Martin Dunman Sur., 300 ft. SE of No. 12 and parallel to land line ..... Drlg. shale 5,833 ft.
Yount Lee Oil Co.'s No. 17 Smith, M. Dunman Sur., 300 ft. SW of No. 14 ..... Drlg. shale 3,599 ft.

ARIOLA—HARDIN COUNTY

Republic Prod. Co.'s No. 3 Ariola fee, Ariola Sur., 400 ft. S of No. 1 ..... Pulling screen 4,320 ft.

BATSON—HARDIN COUNTY

Danciger O. & R. Co.'s No. 1 Hooks, 95 ft. S, 150 ft. W of NE cor. of Strip 15, Donoghue Sur. ..... T.D. 4,671 ft; sidetracked lost core bbl.; cmtd. bottom of hole.

PIERCE JUNCTION—HARRIS COUNTY

Rio Bravo Oil Co.'s No. 11-A Settegast (W.O.), J. Kopman Sur., 650 ft. from N line, 350 ft. from E line of lease ..... T.D. 4,389 ft; sidetracked 4,155 ft. and coring sandy shale 4,231 ft.

TOMBALL—HARRIS COUNTY

Humble O. & R. Co. and Magnolia Pet. Co.'s No. 1 Fritz Kobs, J. N. Hooper Sur., 1,445 ft. S, 330 ft. W. of NE cor. of lease ..... Drlg. shale 1,955 ft.
Humble O. & R. Co. and Magnolia Pet. Co.'s No. 1 G. W. H. Martens, lower W. Hurd Sur., center of 330-ac. tract ..... Drlg. shale 3,418 ft.
Humble O. & R. Co. and Magnolia Pet. Co.'s No. 1 Herbert Reid, Chauncy Goodrich Sur. ..... Rig.
Levender & Smith's No. 1 Herman Teake, J. Duckworth Sur., 150 ft. from S line, 184 ft. from E line of 160-ac. lease ..... Spudded.
Magnolia Pet. Co. and Humble O. & R. Co.'s No. 1 Wm. Rudel (63 acres), Joseph House Sur., 350 ft. out of SW cor. of lease ..... Drlg. sticky shale 4,912 ft.
Magnolia Pet. Co. and Humble O. & R. Co.'s No. 1 Martens, Joseph House Sur., 600 ft. from W line and 5,600 ft. from S line of tract ..... Dry and abd. 7,438 ft.
Polk Drlg. Co.'s No. 1 Malcomson, A. Schouten Sur., 500 ft. from N line and 1,500 ft. from E line of 283-ac. Daniel's tract ..... Drlg. gumbo 2,020 ft.

SARATOGA—HARDIN COUNTY

Rio Bravo Oil Co.'s No. 98 Jordit, Jordit Sur. .....Rig.
Seven Wells Corp.'s No. 1 Teela, T. C. Gaines Sur., NW cor. of 883-ac. tract .....Drlg. sandy shale 4,775 ft.

HANKAMER—LIBERTY COUNTY

Gulf Prod. Co.'s No. 1 Crowe & Jacobs, H.&T.C. Sur., Sec. 21, 900 ft. from W line, 1,700 ft. from S line of M 320 ac. of section .....Drlg. sticky shale 6,751 ft.

HULL—LIBERTY COUNTY

W. B. Flynn's No. 1 Cantor, Jesse DeVore Sur., 150 ft. E and 100 ft. N of SE cor. of tract .....Drlg. 1,250 ft.
Mirmar Oil Co.'s No. 1 Hannah, Jesse DeVore Sur., 750 ft. from E line, 250 ft. from N line of 10-ac. tract..Heaving shale 4,010 ft.
The Texas Co.'s No. 8 Hannah (W.O.), Jesse DeVore Sur. .....T.D. 5,117 ft; drlg. sidetracked 4,877-5,047 ft; fishing.

CONROE—MONTGOMERY COUNTY

Alpha Pet. Co.'s No. 4-A Krohn, S. H. Bryan Sur., 791 ft. N of No. 3-A .....Drlg. sandy shale and gumbo 1,-500 ft.
Alpha Pet. Co.'s No. 1-B Krohn, S. H. Bryan Sur., center of 20-ac. tract .....Rigging up.
Alpha Pet. Co.'s No. 5 Keystone Mills, L. Smith Sur., 466 ft. out of NW cor. .....Comp. 55 bbls. per hour; ¼-in. choke, 5,100 ft.
E. S. Craft's No. 1 Granger, T.&N.O. Sur. No. 14, 467 ft. out of NW cor. of 77-ac. lease .....T.D. 5,057 ft; flowed short time; trying to W.O.
H. M. Crighton's No. 1-B South Tex. Dev. Co., T.&N. O. Sur. No. 5, center of tract .....Drlg. shale 3,850 ft.
Gulf Coast Drlg. & Prod. Co.'s No. 10-B Keystone Mills, A. Steele Sur., 434 ft. from W line, 466 ft. from S line .....Drlg. shale 2,224 ft.
Harrison & Abercrombie's No. 5 Ben Wiggins, T.&N. O. Sur. No. 6, 475 ft. from W line, 470 ft. from S line of lease .....T.D. 5,137 ft; comp. 75 bbls. per hr.; ½-in. choke.
Hooper-Rutherford's No. 4 Hooper, L&G.N. Sur. No. 649..Drlg. shale and lime 4,397 ft.
Houston Oil Co.-Tide Water Oil Co.'s No. 3 Dobbins, Ransom House Sur., 425 ft. from N line, 2,549 ft. from W line of lease .....Comp. 34 bbls. per hr.; 5/16-in. choke, 5,106 ft.
Houston Oil Co.-Tide Water Oil Co.'s No. 4 Dobbins, Ransom House Sur., 328 ft. W of No. 5 .....T.D. 324 ft; cmtd. 16-in. csg. 314 ft.
Houston Oil Co.-Tide Water Oil Co.'s No. 2 Moore, L. Smith Sur., 250 ft. N line, 466 ft. W line of lease...Rig.
Houston Oil Co.-Tide Water Oil Co.'s No. 3 Moore, L. Smith Sur., 466 ft. out of SE cor. lease .....Cmtd. csg. 5,085 ft.
Humble O. & R. Co.'s No. 10 Dobbins, Ransom House Sur., 425 ft. N line, 466 ft. E line of lease .....Drlg. shale 1,366 ft.
Humble O. & R. Co.'s No. 7 Emory, W.C.R.R. Sur. No. 13, 1,020 ft. N of No. 3 .....Drlg. shale 4,096 ft.
Humble O. & R. Co.'s No. 36 Madeley, Ransom House Sur., 933 ft. NE of No. 31 and 570 ft. NW at right angles to most southerly line of lease .....Drlg. shale 5,020 ft.
Humble O. & R. Co.'s No. 30 Moore, L. Smith Sur., 993 ft. SW of No. 28 .....Drlg. shale 4,356 ft.
Humble O. & R. Co.'s No. 35 South Tex. Dev. Co., Theo. Slade Sur., 1,095 ft. NE of No. 34 ..... Sand 5,110 ft.
Humble O. & R. Co.'s No. 1 Stream, C. A. West Sur., 720 ft. N, 620 ft. E of Navarro Oil Co.-Standard's No. 1 Meyers .....T.D. 5,135 ft; cmtd. csg.
Humble O. & R. Co.'s No. 1 O. Wooten, J. A. Davis Sur., 270 ft. from S line, 200 ft. from W line .....Drlg. shale 1,932 ft.
Humble O. & R. Co.'s No. 4 Wiggins & Athey, L. Smith Sur., 865 ft. SW of No. 1 .....Drlg. sandy shale 2,900 ft.
W. M. Massie's No. 4 Hooper, F. Hooper Sur., 2,404 ft. from N line in center E and W .....Cmtd. csg. 5,095 ft.
Navarro Oil Co.'s No. 2 Brown, E. P. Brown Sur. .....Drlg. sandy shale and gumbo 1,-814 ft.
Navarro Oil Co. and Farlyn Oil Co.'s No. 1-B House, W.C.R.R. Sur. No. 14, 675 ft. from W line and 330 ft. from S line of 20 acres .....Comp. well 5,100 ft.
Neversuch Oil Co.'s No. 5 South Tex. Dev. Co., T.&N. O. Sur. No. 5, 578 ft. from N line and 335 ft. from E line .....Comp. 60 bbls. per hour; ½-in. choke, 5,100 ft.
Standard Oil Co. of Kansas' No. 1-B Madeley, Ransom House Sur., 400 ft. from N line, 300 ft. from W line .....Comp. 144 bbls. per hr.; ½-in. choke, 5,128 ft.
Sun Oil Co.'s No. 1 Clark, Wilson Strickland Sur., 400 ft. from N line, 467 ft. from E line .....Comp. 89 bbls. per hour; ½-in. choke, 5,111 ft.
Sun Oil Co.'s No. 7 Foster, John Bricker Sur., 933 ft. W of No. 3 and 467 ft. from N line .....T.D. 5,115 ft; cmtd. csg.
Sun Oil Co.'s No. 9 Foster, John Bricker Sur., 1,124 ft. NE of No. 4 .....Comp. 43 bbls. per hour; ½-in. choke, 5,134 ft.
Sun Oil Co.'s No. 10 Foster, John Bricker Sur., 933 ft. SE of No. 5 .....Drlg. shale 2,950 ft.
Sun Oil Co.'s No. 1 McDonald, Wilson Strickland Sur., 469 ft. from W line, 409 ft. from N line .....Drlg. sandy shale and gumbo 1,-110 ft.
The Texas Co.'s No. 3 Dudley, C. B. Stewart Sur., 466 ft. out of NW cor. of lease .....Comp. 35 bbls. per hour; ½-in. choke, 5,120 ft.
The Texas Co.'s No. 4 Dudley, C. B. Stewart Sur., 466 ft. out of SE cor. of lease .....T.D. 5,128 ft; cmtd. 7-in. csg. 5,-050 ft.
The Texas Co.'s No. 8 Rhodes, 330 ft. S of S line of C. A. West Sur., and 330 ft. W of W line of John Massey Sur. in W. S. Rhodes Sur. .....Drlg. hard lime 4,974 ft.
The Texas Co.'s No. 14 Rhodes, W. S. Rhodes Sur., 1,040 ft. from W line, 1,470 ft. from S line .....T.D. 5,010 ft; drill pipe stuck.
The Texas Co.'s No. 15 Rhodes, W. S. Rhodes Sur., 308 ft. from N line, 388 ft. from E line of lease .....Drlg. sticky shale 2,370 ft.
The Texas Co.'s No. 16 Rhodes, W. S. Rhodes Sur., 330 ft. S of N line, 467 ft. E at right angles from W line. Drlg. gumbo 1,316 ft.
Tide Water Oil Co.'s No. 4 Eichletz, Lemuel Smith Sur. Drlg. sticky shale and lime 2,-549 ft.
Tide Water Oil Co.'s No. 3 Granger, T.&N.O. Sur. No. 14, 467 ft. from N line and 933 ft. E of No. 1.....Drlg. sand and shale 4,760 ft.
Tide Water Oil Co.'s No. 10 Dean, W. C. C. Lynch Sur., 2,349 ft. from E line, 467 ft. from S line .....Drlg. sticky shale 2,146 ft.
Tide Water Oil Co.'s No. 21 Lewis, C. B. Stewart Sur., 467 ft. out of SE cor. "B" tract .....Drlg. hard sand and broken rock 700 ft.
Tide Water Oil Co.'s No. 22 Lewis, C. B. Stewart Sur., 1,400 ft. from W line, 2,015 ft. from S line "A" lease. Drlg. sandy shale and shells 2,-505 ft.

LIVINGSTON—POLK COUNTY

Dick Schwab's No. 2 Holmes-Davis, A. Viesca Sur., 157 ft. out of SW cor. 80-ac. tract .....Building derrick.
Shell Pet. Corp.'s No. 1 Munson, A. Viesca Sur., 330 ft. out of NE cor. of tract .....Cmtd. 10¾-in. surface csg. 538 ft.

REFUGIO—REFUGIO COUNTY

United Prod. Corp.'s No. 1-A M. F. Lambert, 666 ft. from N line, 833 ft. from W line of Hews & Brown Sur. ..... Drlg. sandy shale 6,250 ft.

HUMBLE—HARRIS COUNTY

Rosenthall & Hefferman's No. 1 Westheimer, John B. Jones Sur., 72 ft. due W of Rio Bravo Oil Co.'s No. 1 Westheimer, Blk. 16 .....No report.
The Texas Co.'s No. 22 House (W.O.), M. Owens Sur. ..T.D. 5,057 ft.; sidetracked 4,146-4,480 ft; set screen; put on pump and pumped dry.

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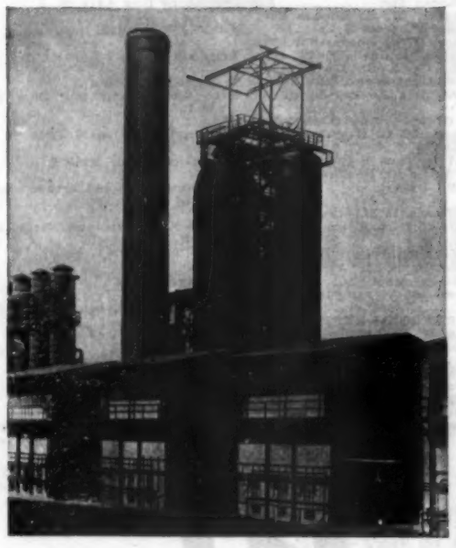

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MYKAWA—HARRIS COUNTY

Frederick & Coffelt's No. 1 Irwin, Wm. Lovett Sur., 300 ft. S and E from J. A. Platt vs. G.C.&S.F. conflict cor. of 6,959-ac. tract, W. B. Walker Sur. .....No report.

PORT NECHES—ORANGE COUNTY

The Texas Co.'s No. 1 Orange Nat. Bank, 150 ft. out of NW cor of lease, Jacob Beaumont Sur. ..... Drlg. sand and shale 3,512 ft.

GRETA—REFUGIO COUNTY

Atkins & O'Neil's No. 1 O'Brien, 960 ft. N of S line of J. T. McGrew Sur., 750 ft. W of R.R. .....Rig.

E. H. Buckner's No. 1 J. M. O'Brien, 150 ft. S of N line of N. S. Crunk Sur. and 150 ft. NW of St. L.&B. M. R.R. .....Sand showing oil 4,360 ft; cmtd. 7-in. csg. 4,345 ft.

Greta Oil Corp.'s No. 2 J. M. O'Brien, E. H. Winfield Sur., 150 ft. out of SW cor. of 25-ac. tract .....Blew out 2,600 ft.

Luling O. & G. Co. and Morgan's No. 1 J. M. O'Brien, N. S. Crunk Sur., 150 ft. out of most easterly cor. of 50-ac. tract .....Spudded.

M. C. McGeehee's No. 1 O'Brien, 3,500 ft. W of most easterly E line and 3,150 ft. N of most southerly S line of E. H. Winfield Sur. .....Drlg. shale 4,325 ft.

W. L. Pearson's No. 1 Wilson Heard, M. J. Xmines Sur., 1,760 ft. from N line, 1,000 ft. from W line of 260-ac. tract .....T.D. 2,115 ft; cratered and abd.

W. L. Pearson's No. 2 Wilson Heard, M. J. Xmines Sur., 330 ft. out of NE cor. of lease .....Derrick.

Joe E. Smith's No. 1 O'Brien, 1,500 ft. N of most southerly S line and 1,800 ft. E of most westerly E line of E. H. Winfield Sur. .....Derrick.

Vidauri Oil Co.'s No. 1 Welder, 330 ft. S of N line of James T. McGrew Sur., and 700 ft. W of R.R. ....Sand showing oil 3,498-3,510 ft.

SOUTH LOUISIANA FIELDS

ASSUMPTION PARISH

Barnsdall Oil Co.'s No. 1 Williams, 330 ft. out of NE cor. Sec. 38-14s-14e ..... Drlg. shale 3,522 ft.

BEAUREGARD PARISH

Burnham & Johnson's No. 1 Long Bell, 725 ft. S, 155 ft. E of NW cor. NW NW Sec. 34-2s-8w .....Sand and shale 3,076 ft; S.D.

CALCASIEU PARISH

Union Sulphur Co.'s No. 1 Stout, 1,237 ft. N, 1,167 ft. W of SE cor. Sec. 36-8s-8w .....No report.

CAMERON PARISH

Southern Sulphur Co.'s No. 1 Gulf of Mexico, 330 ft. S, 333 ft. E of SW cor. Sec. 29-15s-10w ..... S.D. 450 ft.

The Texas Co.'s No. 8 State-Calcasieu Lake, 14,255 ft. W, 3,270 ft. N of NE cor. Sec. 1-14s-9w .....Spudded.

CAMERON MEADOWS—CAMERON PARISH

Burton-Sutton Oil Co.'s No. 1 School Land, 500 ft. W and 20 ft. N of SE cor. Sec. 16-14s-13w .....Drlg. shale 4,803 ft.

CHOCTAW—IBERVILLE PARISH

Standard Oil Co.'s No. 4 Myrtle Grove, 3,350 ft. S, 150 ft. W of NE cor. NW Sec. 52-9s-11e .....No report.

DARROW—ASCENSION PARISH

Rio Bravo Oil Co.'s No. 1 Community, 200 ft. N line, 1,500 ft. E at right angles from SW cor. Sec. 15-10s-2e .....Trying to set screen in sand 4,000-06 ft.

EVANGELINE PARISH

J. E. Lendau's No. 2 Vidrine, 260 ft. W and 400 ft. S of NE cor. Sec. 47-3s-2e .....Drlg. gumbo 3,185 ft.

GUEYDAN—VERMILLION PARISH

Pure Oil Co.'s No. 4 Alliance Trust Co., 578 ft. from N line and 1,921 ft. from W line of Sec. 34-11s-1w..Drlg. lime and shale 666 ft.

Pure Oil Co.'s No. 5 Alliance Trust Co., 525 ft. from N line, 550 ft. from W line of Sec. 34-11s-1w .....Drlg. firm sand 2,735 ft.

Pure Oil Co.'s No. 2 Mulvey, Sec. 34-11s-1w, 1,515 ft. from N line, 1,150 ft. from E line of tract ..... To make D.S. test 4,850 ft.

LOCKPORT—CALCASIEU PARISH

Magnolia Pet. Co.'s No. 8 State Bayou D'Inde, 865 ft. E, 570 ft. N of SW cor. NE Sec. 8-10s-9w ..... Drlg. shale 6,041 ft.

BLACK BAYOU—CAMERON PARISH

Shell Pet. Corp.'s No. 15 Watkins, 1,890 ft. from N line and 680 ft. from E line of Sec. 18-12s-12w .....Pulling screen to deepen 4,402 ft.

HACKBERRY—CAMERON PARISH

Gulf Ref. Co.'s No. 12 Irwin, 865 ft. N, 518 ft. E of SW cor. Sec. 44-12s-9w .....Drlg. sand 556 ft.

Wilfred Lahey's No. 1 Aroux, center 2-ac. tract, Sec. 36-12s-10w .....No report.

Massert & Cruse's No. 1 Sutton, 656 ft. S, 325 ft. E of NW cor. Sec. 26-12s-10w .....S.D. 5,200 ft.

Pop Oil Co.'s No. 1 Yount Lee, 3,996 ft. W and 100 ft. N of SE cor. Sec. 19-12s-10w .....Spudded.

Union Sulphur Co.'s No. 6 Gulf Land-Humble Lease, Sec. 11-12s-10w, 245 ft. W and 210 ft. S of No. 4...Drlg. shale 5,910 ft.

IOWA—CALCASIEU AND JEFF DAVIS PARISHES

Magnolia Pet. Co.'s No. 1 Bowman, 330 ft. out of NE cor. S½ NW Sec. 12-9s-7w .....Drlg. shale 6,185 ft.

Magnolia Pet. Co.'s No. 1 Gillson, 330 ft. out of SE cor. NE Sec. 12-9s-7w .....T.D. 7,027 ft; comp. 1,440 bbls. P. L. oil, 9/32-in. choke; tubing pressure 1,275 lbs.; casing pressure 1,385 lbs.

Magnolia Pet. Co.'s No. 1 Willett, 330 ft. N and E out of SW cor. NW Sec. 7-9s-6w .....Drlg. shale 6,795 ft.

Shell Pet. Corp.'s No. 4 Pontenot, Sec. 7-9s-6w, 330 ft. out of NW cor. of lease .....Drlg. shale and sand 6,242 ft.

Shell Pet. Corp.'s No. 4 Heyd, 2,122 ft. W, 1,310 ft. S of NE cor. Sec. 13-9s-7w .....Drlg. sand and shale 4,898 ft.

Shell Pet. Corp.'s No. 2 Stafford, 330 ft. from W line and 365 ft. from S line of NW Sec. 18-9s-6w .....Drlg. sand and shale 4,368 ft.

JEFFERSON DAVIS PARISH

B. D. Finley's No. 1 Clarphy-Loginon, 300 ft. N and 50 ft. W of SW NW Sec. 22-10s-4w .....Drlg. 3,520 ft.

Humble O. & R. Co.'s No. 3 Devillbiss, 1,850 ft. S, 350 ft. W of NE cor. Sec. 14-9s-4w .....Drlg. sticky shale 6,700 ft.

JENNINGS—ACADIA PARISH

Yount Lee Oil Co.'s No. 11 Houssiere-Latreille, Sec. 47-9s-2w, 300 ft. E of No. 12 .....Drlg. 200 ft.

LA FOURCHE PARISH

Southern Sulphur Co.'s No. 1 State-Bay Marchand, 617 ft. E, 710 ft. S of SW cor. Sec. 20, in Sec. 29-22s-22e.Spudded.

FORT BARRE—ST. LANDRY PARISH

The Texas Co.'s No. 1 Thompson, 2,593 ft. N, 477 ft. E of SW cor. Sec. 20-6s-5e .....No report.

STARKS—CALCASIEU PARISH

Union Sulphur Co.'s No. 1 Industrial, 1,910 ft. S, 2,254 ft. W of NE cor. Sec. 36-9s-13w .....Drlg. 2,600 ft.

Union Sulphur Co.'s No. 2 Industrial, 1,345 ft. N, 390 ft. E of SW cor. Sec. 30-9s-13w .....Drlg. gumbo 1,047 ft.

SWEET LAKE—CAMERON PARISH

Pure Oil Co.'s No. 11 Yount Lee, Sec. 13-13s-8w, 500 ft. S 66 deg. 42 min. from No. 9 .....Heaving shale 5,070 ft; P.B. to 7,210 ft; sidetracked at 7,154 ft. to oil sand 7,350 ft; running 8⅝-in. csg.

ST. BERNARD PARISH

Southern Sulphur Co.'s No. 1 State-Lake Borgne, 510 ft. N, 330 ft. E of SE cor. Sec. 33-12s-15e .....Rig.

Southern Sulphur Co.'s No. 1 Lake Levy, 460 ft. S, 500 ft. N of SW cor. Sec. 28-13s-15e .....Derrick.

SULPHUR—CALCASIEU PARISH

Union Sulphur Co.'s No. 744 fee (W.O.), 2 ft. S, 34 ft. W of C Sec. 29-9s-10w.....Drlg. shale 4,495 ft.

Union Sulphur Co.'s No. 747 fee, 750 ft. W, 5 ft. S of C Sec. 29-9s-10w .....Drlg. 3,365 ft.

Union Sulphur Co.'s No. 780 fee, 465 ft. N and 536 ft. E of center of Sec. 29-9s-10w .....Cmtd. csg. 3,478 ft.

Union Sulphur Co.'s No. 783 fee, Sec. 29-9s-10w .....Drlg. 4,450 ft.

TERREBONNE PARISH

The Texas Co.'s No. 8 State-Caillou Island, 1,050 ft. S, 2,770 ft. E of NW cor. Sec. 20-22s-20e ..... Drlg. shale 5,400 ft.
The Texas Co.'s No. 8 State-Dog Lake, 4,067 ft. W, 1,677 ft. N of SE cor. Sec. 31-21s-14e ..... Coring sandy shale 5,205 ft.
The Texas Co.'s No. 1 State-Four Isle, 1,800 ft. N, 1,700 ft. W of SE cor. Sec. 22-21s-14e ..... Drlg. hard sand 4,530 ft.
The Texas Co.'s No. 1 School Board-Bay St. Elaine, 1,250 ft. S, 600 ft. E of NW cor. Sec. 16-22s-13e..... Drlg. shale 3,103 ft.

TEXAS

MISCELLANEOUS WILDCATS

BRAZORIA COUNTY

E. A. Andersen et al's No. 1 Reynold, Johnson, Walker & Borden League, 5,502 ft. from W line, 350 ft. from W line of 122-ac. lease .. .. Drlg. gumbo 1,686 ft.
Amerada Pet. Corp. and Rycade Oil Corp.'s No. 4 Seaburn, Austin & Williams Sur., 150 ft. W of No. 3 on line with Nos. 1, 2 and 3 ..... Shale and lime 2,795 ft; fishing bit.

BRAZOS COUNTY

F. H. Scott's No. 1 Klintworth, I. Curd Sur., 300 ft. NE line, 400 ft. SE line of tract ..... Cmtd. surface csg.

CHAMBERS COUNTY

Mills & Jones' No. 1 Gan, John S. Roberts Sur., 255 ft. W, 1,052.72 ft. S of NE cor. of 138-ac. tract .... Drlg. shale and lime 3,955 ft.

COLORADO COUNTY

Fabrigus & Poole's No. 1 Lake Side Irrigation, 1,500 ft. SE, 500 ft. NE NW cor. Patrick Real Sur. ..... T.D. 1,445 ft; cmtd. 12½-in. csg. 1,150 ft.
Humble O. & R. Co.'s No. 1 John McShane, L&G.N. Sur., Sec. 42, 466 ft. out of NE cor of tract ..... Dry and abd. 6,766 ft.
McCullouch Oil Co.'s No. 1 Kansteiner, Lelander Beason Sur., 300 ft. out of NE cor. of tract ..... Rig standing.
Weimar Oil Co.'s No. 1 H. T. Brandt, F. Pettus Sur., 250 ft. from N line, 250 ft. from E line of tract .... Drlg. sand and shale 3,280 ft.

FORT BEND COUNTY

Naylor & DeCosta's No. 1 Naylor, 4,350 ft. N. 55 deg E from SW cor. 453-ac. tract in Christman Sur. .. T.D. 7,014 ft; P.B. to test at 6,400 ft.; standing.

GRIMES COUNTY

Koch et al's No. 1 Haferkamp, Samuel Fulton Sur., 335 ft. from S line, 347 ft. from E line of 189 acres. Sand showing oil 3,514 ft.; to make D.S. test.
Petroleum Southwest Co.'s No. 1 Greer, Pat O'Connor Sur., 200 ft. from W line, 400 ft. from N line of 150-ac. tract ..... Shale 2,753 ft; cmtd. 8⅝-in. csg. 2,730 ft.

HARRIS COUNTY

Burns, Ogg & Houston's No. 1 Kenning, H.&T.B. Sur., 330 ft. S line and 550 ft. W line ..... Derrick.
C. & C. Drlg. Co. and Mephail's No. 1 Erhardt, C. H. Delesdenier League ..... Drlg. sand and shale 5,912 ft.
Hamilton et al's No. 1 Hargroves, W. C. Ry. Sur. No. 10, Blk. 1; 1,750 ft. from E line, 645 ft. N line ... Gumbo 1,015 ft; cmtd. 10-in. csg.
Huffman Dome Dev. Co.'s No. 1 E. M. House, Mary McGruder Sur., 590 ft. E of NW cor. H.E.&W.T. Ry. and 954 ft. N at right angles ..... Rig.
H. B. Jordan's No. 1 Cochran, J. L. Jordan Sur., 1,950 ft. S line, 1,930 ft. E line ..... Drlg. shale 1,135 ft.
Melba Oil Co.'s No. 1 L. B. House, 160 ft. from N line, 600 ft. from E line, Sec. 22, Harris County School Land Sur. ..... Derrick.
Jack Schultz et al's No. 1 Woodburn, 450 ft. NW of center of August Whitlock Sur. ..... Drlg. sandy shale 3,028 ft.
Sinclair Prairie Oil Co.'s No. 1 Kirmayer, Jesse Denton Sur., 357 ft. S, 601 ft. W of SE cor. Mrs. Willie Moore 200-ac. tract in Kirmayer 800-ac. tract ..... S.W. sand 5,902 ft; abd.

JACKSON COUNTY

The Texas Co.'s No. 1 Mitchell, S. F. Austin League, 450 ft. W, 450 ft. S of NE cor. of 63-ac. tract, Lot 28, Clement Subd. ..... T.D. 5,502 ft; lost hole; sidetracked at 3,740 ft. and drlg. shale 3,825 ft.

JEFFERSON COUNTY

Elam & Denny's No. 2 Broussard, John McGaffey Sur. .. Hard sand 3,440 ft; S.D.
W. J. Parker's No. 1 Rorck, A. Williams Sur. ..... Drlg. gumbo 1,953 ft.
Sun Oil Co.'s No. 1 Paggi, 990 ft. W, 1,610 ft. N of SE cor. of T.&N.O. Sur. No. 32 ..... Rigging up.

LIBERTY COUNTY

Yount Lee Oil Co.'s No. 1 E. W. Boyt, H.&T.C. Sur., Sec. 17, 300 ft. from S line, 2,440 ft. from E line of section ..... Hard sand 9,259 ft; set (no cmt.) 7-in. csg. 9,165 ft.

MATAGORDA COUNTY

Continental Oil Co.'s No. 1 Boker, 400 ft. out of SW cor. Lot 17, Robbins & Middle Subd., J. W. Criswell Sur. ..... Rigging up.
Humble O. & R. Co.'s No. 2 Pierce est., 1,900 ft. NE 466 ft. NW at right angles out of SW cor. of Pierce estate, same being NW cor. of W. S. and L. B Hunt tract, W. Carson Sur. ..... Drlg. sandy shale 8,112 ft.
Oils Consolidated, Inc.'s No. 1 Hawkins, 1,240 ft. NE, 350 ft. NW of S cor. of Daniel McCarthy Sur. ..... Derrick.
United North & South Dev. Co.'s No. 1 Unit 8 (No. 2 Stoddard), 25 ft. each way out of NW cor. of Lot 19, Buckeye Townsite ..... Coring sand showing oil 7,835 ft.
United North & South Dev. Co.'s No. 1 Unit 14 (No. 1 Dr. Pietner), 1,310 ft. SE of No. 1 Stoddard and 136 ft. W of right of way of Collegeport branch of St. L.&B.M.R.R., Buckeye ..... Coring shale 7,850 ft.
United North & South Dev. Co.'s No. 1 Unit 25, 1,335 ft. S, 1,000 ft. E of No. 1 Unit 6 ..... Drlg. lime and shale 6,145 ft.

MONTGOMERY COUNTY

Fostoria Oil Co.'s No. 1 Foster Lbr. Co., 1,130 varas W, 627 varas N of SE cor. H.T.&B. Sur. No. 2 ..... Derrick.
Showers & Moncrief's No. 1 Rohlf, 694 ft. from S line, 3,325 ft. from W line of Daniel Garrett Sur. (Abst. 224) ..... Rig.
L. C. Thorpe's No. 1 Sutherland, 2,450 ft. from E line, 1,350 ft. from N line of C. McRae Sur. ..... Derrick.

REFUGIO COUNTY

Humble O. & R. Co.'s No. 6 O'Connor, L. Serna Sur., 14,375 ft. from S line, 2,932 ft. from W line ..... Drlg. sand 3,170 ft.

TYLER COUNTY

Republic Prod. Co. and Houston Oil Co.'s No. 1,014-E (No. 2 Sterne fee), Adolph Sterne Sur., 1,300 ft. S. 400 ft. W of No. 1 Sterne fee ..... Fishing drill pipe 6,776 ft.

VICTORIA COUNTY

Gulf Prod. Co.'s No. 4 Keeran, Martin DeLeon Sur., 3,320 ft. N 41 deg. 43 min. W, parallel to NE line of lease from No. 1 ..... Derrick.
The Texas Co.'s No. 6-A McFaddin, 5,600 ft. from NE line, 250 ft. from SE line of A. J. Gray ..... T.D. 2,011 ft; pumping wtr. into sand 1,937-2,010 ft. to kill gas pressure.
The Texas Co.'s No. 7 McFaddin, 6,600 ft. S 15 deg. W, 450 ft. N 75 deg. W at right angles from the NE cor. of the A. J. Gray Sur. ..... T.D. 1,176 ft; blowing gas and mud.

WALLER COUNTY

Trapshooter Reilly Oil & Royalty Co.'s No. 1 Menke, Justo Liende Sur., 600 ft. at right angles from NW line at 250 ft. at right angles from E line of 330-ac. tract ..... Drlg. sandy shale 5,053 ft.

WHARTON COUNTY

Pure Oil Co.'s No. 1 Stewart, 2,410 ft. NW, 1,650 ft. NE of S cor. of Sec. 25, Morris & Cummings Sur. ..... Drlg. tough shale 7,773 ft.

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FOR the domestic or the small industrial user whose gas comes from a high pressure line, some protective measure must be taken that is positive and unfailing. The Fulton House Regulator is made to operate with perfect safety and to regulate to the uniform low pressure desired for use, regardless of what the outside pressure may be, up to 500 pounds. It is equipped with an automatic cut-off which closes the port of the regulator valve if the pressure at any time fails or the gas is turned off; and it remains closed until opened again by hand. An accident has never been known where a Fulton House Regulator was in use.

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THE OIL AND GAS JOURNAL

Tulsa, Oklahoma

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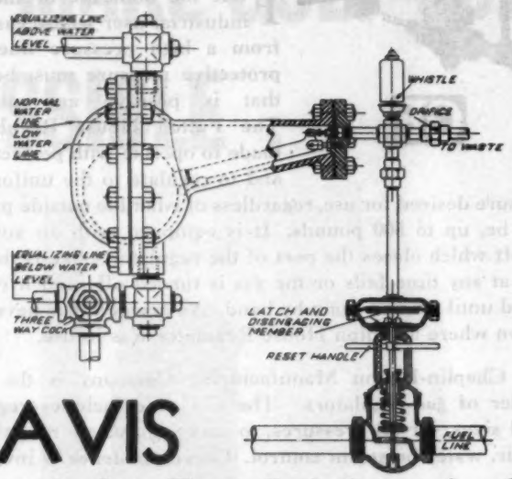

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Pure Oil Co.'s No. 1 Chas. T. Kuntze, 2,183 ft. from NW line, 467 ft. from SW line, Sec. 27, Morris & Cummings Sur. ..... Moving in rig.

Wildcat Operations in Louisiana-Arkansas

(Continued from Page 51)

DESHA COUNTY

T. J. O'Hara's No. 1 Martin, NW cor. NW SE Sec. 3-8-1e ..... S.D. 140 ft.

HEMPSTEAD COUNTY

Kentucky O. & G. Co.'s No. 1 Leslie, NW cor. SW NW Sec. 21-9-26 ..... Derrick.

LITTLE RIVER COUNTY

K. E. and W. N. Merrow's No. 1 Taafe, Sec. 25-12-32, 330 ft. N and W, SE cor. NW NW ..... Drlg. 50 ft.

LAFAYETTE COUNTY

Geo. W. Harper's No. 1 Reed-Bodcaw, NW cor. Sec. 16-15-22 ..... Set 10-in. 40 ft.

MILLER COUNTY

J. T. Humphrey's No. 1 Grace, C SW SW Sec. 9-15-27... Cmtd. 10-in. 306 ft.

Tarkington et al's No. 1 Gibson, 1,980 ft. N, 660 ft. E, SW cor. Sec. 30-18-27 ..... Rigging up.

Mississippi

JONES COUNTY

Snow-Black Pet. Co.'s No. 1 Watson, 660 ft. W, 310 ft. S, center, Sec. 24-7-13 ..... Set 12½-in. 300 ft; drlg. 1,500 ft.

LAMAR COUNTY

Lamar Oil Co.'s No. 1 Scott, NE NE Sec. 18-2n-14..... Rigged up.

WALTHALL COUNTY

Mutual O. & G. Co.'s No. 1 Boyd, Sec. 24-2n-9e, SW cor. SW SE ..... Derrick pattern.

WARREN COUNTY

Kistler & Stivers' No. 1 Blake est., 1,215 ft. NE Blakely Station, Sec. 15-17-5 ..... Rig up.

Louisiana-Arkansas Proven Areas

North Louisiana

CADDO—BETHANY

Company, well, farm name, section and block—	Remarks:
Tom Collins Pet. Co.'s No. 1 Gill & Lipscomb, 660 ft. N, 1,666 ft. E, SW cor. Sec. 17-16-16	Derrick.

CADDO PARISH

Louana O. & G. Co.'s No. 2 Sharp, Sec. 10-18-16, 660 ft. S and W, NE cor. NW	Derrick.

CADDO—BLANCHARD

Louana O. & G. Co.'s No. 1 Winters, 1,980 ft. N, 660 ft. W, SE cor. Sec. 4-18-16	Comp. 7,000,000 ft. gas 2,759 ft.

CADDO—RODESSA

Ark. La. P. L. Co.'s No. 1 Williams & Windham, Sec. 4-22-16, 560 ft. S, 660 ft. E, NW cor. NE NW	Rigging up.
United Gas Public Service Co.'s No. 1 Festeruau, Sec. 23-23-16, 1,980 ft. N, 1,320 ft. E, SW cor.	Derrick.

CLAIBORNE PARISH

Haynesville Partnership's No. 1 J. L. Garrett, 300 ft. S and E, NW cor. SW Sec. 25-23-5	Coring red shale 4,502 ft.

DE SOTO PARISH

P. B. Dyer's No. 1 B. F. Jenkins, SE cor. NW SW Sec. 35-13-13	Tested est. 4,000,000 ft. gas 2,477 ft.

MOREHOUSE PARISH

The Texas Co.'s No. 1 Sisson, 300 ft. N, 320 ft. E, center Sec. 20-22-2	Drlg. 2,350 ft.
United Gas Public Service Co.'s No. 28 Crossett, 1,991 ft. E, 2,640 ft. S, NW cor. Sec. 27-21-4e	Drlg. 2,067 ft.
United Gas Public Service Co.'s No. 30 Crossett, Sec. 25-22-4e	Derrick.

OUACHITA PARISH

Inabent & Pipe's No. 2 Van Horn, Sec. 14-18-4	Comp. 350,000 ft. gas 2,252 ft.

SABINE PARISH—ZWOLLE

Baird Bros.' No. 1 Trammell, 600 ft. N, 330 ft. W, SE cor. NE Sec. 30-8-11	S.D. 1,890 ft.
Bryant & Lucas' No. 1 Andries, 360 ft. S, 350 ft. W, NE cor. NW SE Sec. 15-7-11	S.D. 41 ft.
Byers et al's No. 1 Ervin & Bishop, 550 ft. E, 450 ft. N, SW cor. Sec. 16-7-11	Dry and abd. 3,502 ft.
J. C. Chandler's No. 1 Rains, SW cor. NW Sec. 14-7-11.	Rigging up.
T. E. Kelly's No. 1 McClanahan, 1,000 ft. S, 330 ft. E. NW cor. SW NW Sec. 26-8-11	Derrick wait on
H. C. Maulding's No. 1 DeLatin, Sec. 2-7-11	Drlg. 1,050 ft.
Ben Merritt et al's No. 1 L. A. Cook, 336 ft. N, 333 ft. W, SE cor. Sec. 34-8-11	W.O.S.R.; 1,000 ft. oil in hole; T. D. 2,560 ft.
E. F. Neely's No. 1 Garner, SE cor. SW NE Sec. 15-7-11.	Dry and abd. 2,750 ft.
Pugh-Hickman Drlg. Co.'s No. 7 Blackman, 330 ft. N and E, SW cor. NE NW Sec. 36-8-12	S.D. 2,538 ft.
Robertson Drlg. Co.'s No. 2 Hughes, 330 ft. S, 660 ft. W, NE cor. SW NW Sec. 36-8-12	Cmtd. 6-in. 2,365 ft.
Scully & Beach's No. 3 Lafitte, 1,020 ft. S, 134 ft. E, NW cor. Sec. 13-7-11	Abd.; will not pump. 2,636 ft.
Service Drlg. & Royalties Corp.'s No. 2-B Gardner, 330 ft. S and W, NE cor. SW NW Sec. 7-7-10	Testing 2,636 ft.
C. H. Tuttle's No. 4 Byrd, 300 ft. S, 320 ft. E, NW cor. NW NW Sec. 7-7-10	Derrick.

Mississippi

HINDS COUNTY

Meredith Trading Co., Inc.'s No. 1 Crane-Lawrence, Sec. 23-6n-1e, 1,178 ft. S, 318 ft. W, NE cor. NW SW	Rigging up.

RANKIN COUNTY

Love Pet. Co.'s No. 1 fee, 300 ft. S, 100 ft. E, NW cor. NE NE Sec. 1-5-1e	Set 6⅝-in. 2,353 ft.
Muse & Muse's No. 1 Carlton, Sec. 13-5n-1e, 650 ft. E, 725 ft. N, SW cor.	Drlg. 150 ft.

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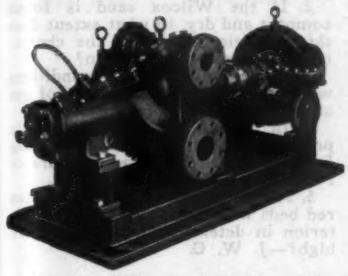
NEW AND IMPROVED EQUIPMENT

Single-Stage Centrifugal Hot Oil Pump Introduced

Goulds Pumps, Inc., Seneca Falls, N. Y., announces the addition of a new single-stage centrifugal hot oil pump to its line of pumps for the oil industry. Built in four sizes, for handling capacities up to 500 g.p.m., adequate provision has been made in the design for efficient operation under the severe service encountered in modern refinery practice.

The casing is split at a 45° angle which allows self-venting top discharge and at the same time gives the usual



ready accessibility for inspection of impeller and wearing rings. For temperatures up to 450° F., cast-iron casing is furnished; while for temperatures up to 1,000° F., electric carbon steel or alloy steel casing is used, depending on requirements of service. Suction chamber is vented, and stuffing box and bearing are water cooled. Shaft is furnished with sleeves of nitrated nitralloy.

The pump is rigidly secured to the bedplate at the coupling end so that expansion, due to temperature changes, is away from the driving end. Steel web support, at outboard end at right angles to shaft, flexes with the expansion of the pump, but at the same time maintains a rigid alignment of shaft in a horizontal plant.

MAXWELL-BUTLER CO.

The Maxwell-Butler Co., 2519 Commerce Street, Houston, Tex., representing oil country equipment manufacturers, was organized by Earl H. Butler, representative of the International Derrick & Equipment Co. for seven years, and L. J. Maxwell, representative for the same period of the Lufkin Foundry & Machine Co. Maxwell-Butler Co. now is representing the Hall & Lowrey Iron Works, of Goose Creek, Tex., on cutting tools and the Stafix pump; Darcoid Co. of New York, on packing; George L. Mesker & Co. of Evansville, Ind., on metal buildings; Waterlox, Inc., on waterproofing and paint vehicle; Merrick Corp. on Bakelite drops and seats; and J. A. Werme Steel & Iron Works, Oklahoma City, on United States Steel derricks.

ALLEGHENY STEEL CO.

The Allegheny Steel Co. of Brackenridge, Pa., has completed an arrangement with the American Chain Co. of Bridgeport, Conn., whereby the former Page Steel and Wire Co. division in Monessen, Pa., will fabricate and sell Allegheny metal and Allegheny alloys in wire form in a complete range of gauges and sizes. In the company's Hazard Wire Rope Co. plant in Wilkes-Barre, Pa., various forms of wire rope and cable will be made from Allegheny alloys. In addition, several other subsidiary companies of the American Chain Co. will fabricate Allegheny metal and Allegheny alloys into various types of products. This arrangement is expected to open up new markets and materially extend the utility of the complete range of corrosion and heat-resisting Allegheny alloys.

Among the Equipment Houses

The Bethlehem Steel Co. announces the opening of a district sales office in the Petroleum Bulding, Houston, Tex., with J. E. Moore as district manager of sales. The district includes Texas and all of Louisiana except those parishes east of the eastern boundaries of St. Landry, St. Martin and Iberia.

—

Price-Trawick, Inc., manufacturer of P. & T. kickoff units, announces the opening of an Oklahoma City office and warehouse at 1111 Southeast Twenty-ninth Street and the appointment of W. E. Halbert, 2506 Wabash Avenue, Fort Worth, as Texas representative.

—

R. B. Wilson, salesmanager of the St. Louis plant of Joseph T. Ryerson & Son, Inc., has been made manager of the St. Louis plant. Mr. Wilson first became associated with the Ryerson company in Chicago. He was a member of the shipping and sales departments for years and then was transferred to St. Louis in charge of the city sales department. Later he was made salesmanager.

—

Alco Products, Inc., of New York, a division of the American Locomotive Co., has been awarded a contract by the Wolverine Empire Refining Co. for the construction of an 1,800-bbl. per day crude oil distillate unit at the Reno, Pa., refinery, to produce gasoline, naphtha, kerosene, gas oil, wax distillate and cylinder stock bottoms from Pennsylvania crude oil.

The entire business and assets of the Audubon Wire Cloth Co., Inc., wire cloth and wire products manufacturer of Audubon, N. J., have been acquired by the Manganese Steel Forge Co., of Philadelphia, Pa. The business will be conducted by the Audubon Wire Cloth Corp., a new organization and wholly-owned subsidiary of the Manganese Steel Forge Co. L. W. Jones is president of the new corporation.

—

The Lufkin Foundry & Machine Co., Lufkin, Tex., has reopened its Houston, Tex., office at the old location, 806 Second National Bank Building, in charge of C. B. Edwards, Gulf Coast representative.

—

R. M. Young, president of the Shand & Jurs Sales Co., Denver, Colo., has returned from a trip which included visits to all the company's eastern offices. M. J. Vierling has been appointed district manager for the company in Detroit, Mich.

—

L. E. Jeanneret, special representative of the Babcock & Wilcox Tube Co., is acting temporarily as district salesmanager of the company's Detroit territory, replacing J. E. Polhemus, former manager.

—

John J. Felsecker has been added to the consulting staff of D. W. Haering & Co., water consultants, 3408 West Monroe Street, Chicago.

Iraq Contracts for Tanks and Floating Roofs Made

The Chicago Bridge & Iron Works, together with its foreign licensees and affiliates, has been awarded the contracts for all of the tankage and floating roofs in connection with the Iraq pipe line project. Approximately 17,500 tons of steel are involved in the construction of thirty-six 93,000-bbl. tanks and thirteen 30,000-bbl. tanks. All of the former are to be equipped with Wiggins pontoon floating roofs and the tankage and roofs are distributed as follows:

Worms & Co., French affiliate of the Chicago Bridge & Iron Works, have been awarded the contract for the fabrication of seventeen 120'x46' 4" high tanks of 93,000 bbls. capacity, all equipped with Wiggins welded pontoon floating roofs and for the erection of 15 of these tanks and floating roofs at Tripoli, the French terminal of the pipe line in Syria. Two of these tanks and floating roofs will be shipped to Kirkuk, the eastern terminal of the line on the east bank of the Tigris and will be erected by the Iraq Petroleum Co. forces, as will the thirteen 30,000-bbl. tanks, 78' 8" diameter by 38' 6" high, which are to be located at the intermediate pumping stations.

Nineteen of the 93,000-bbl. tanks and Wiggins roofs will be fabricated jointly by the Whessoe Foundry & Engineering Co., Ltd., of Darlington, England, and the Motherwell Bridge & Engineering Co., Ltd., of Motherwell, Scotland, the British licensees of the Chicago Bridge & Iron Works for the Wiggins roof. Fifteen of these tanks and roofs will be erected by the same companies at Haifa, the British terminal of the pipe line in Palestine, and the four others will be shipped to Kirkuk for erection by the Iraq people themselves.

Foxboro Introducing New Combination Instrument

There are several outstanding advantages to be gained from the use of combination instruments for recording process conditions. Where such variables as temperature, pressure, flow and liquid level have a direct relation to one another, records of these related variables on one chart are easily compared and more reliable conclusions can be drawn. With one instrument taking the place of two or three, the initial and upkeep costs are both lower. In addition, it is possible, with combination instruments to make more compact less expensive gauge boards. The Foxboro Co., Foxboro, Mass., maker of combination instruments for many years, added another. This is an instrument for recording and controlling pressure and recording flow.

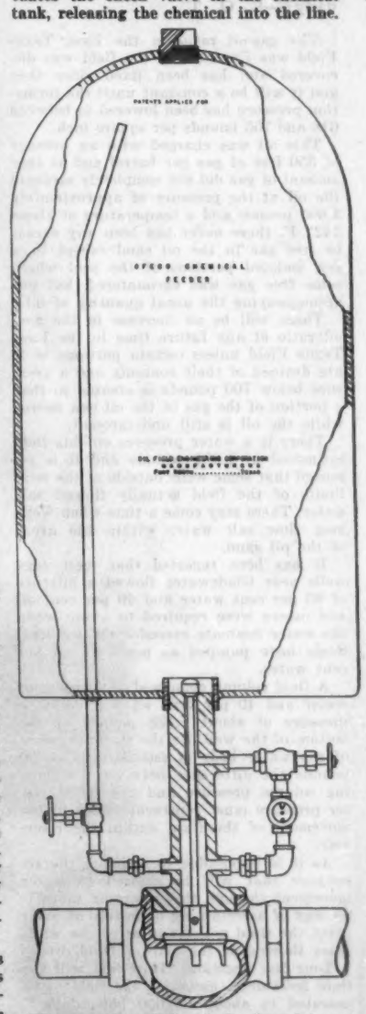
The pressure controlling mechanism is of the stabilog type, which permits full-floating valve action. The flow meter construction is identical with the latest developments in flow meter design practiced by that company. These instruments have found application on gas pressure regulation where flow measurement is essential, such as in back pressure regulation with metering of tail gas from oil refining processes, and on steam and fuel gas lines where pressure reduction is important and metering essential. The instrument is equally adaptable to pressure regulation and metering of liquids and is used on water lines, brine lines, etc.

The combination pressure stabilog and recording flow meter is available in either the flush type case for mounting on instrument board or in the surface mounted case. It is equipped with the latest weatherproof door construction and, if required, the case may be built gas-tight and vented to operate on natural gas instead of compressed air.

Ofeco Announces Chemical Feeder of Unusual Design

The Oil Field Engineering Corp., Fort Worth, Tex., is manufacturing and marketing an automatic chemical feeder of unusual design, which will deliver to the flow line with exactness just the amount of chemical required to treat the oil.

The Ofeco chemical feeder is of a double check valve design. The operation of the line check by the fluid being either pumped or flowing through the line actuates the check valve in the chemical tank, releasing the chemical into the line.



The quantity of chemical released is regulated by a drip adjustment with a throttle cock and a sight feed. When the well stops flowing or pumping both check valves are automatically closed and no chemical can be wasted.

The Ofeco chemical feeder is substantially built with a 7½-gallon chemical tank, with gauge showing chemical content at all times. It is delivered complete with all fittings for immediate installation.

The new Arco Convector is the subject of a 16-page illustrated bulletin issued by the American Radiator Co., New York. The Arco Convector is a unit of assembled cast-iron finned sections and headers united with malleable nipples. It is adapted for steam, vapor or hot water systems.

FIELD PROBLEMS FROM READERS

Edited by Thomas F. Smiley

This department is conducted in order that men connected with the drilling, producing or transporting branches of the petroleum industry may obtain aid in solving problems that confront them in their work. Readers are invited to send questions freely. These questions will be placed in the hands of persons capable of answering them authoritatively, and the answers, based on the best available information, will be published.

Each question should give as much detail as possible, especially if it involves depth of sands, types of sands and operations on adjoining or nearby properties. The source of questions will be considered confidential, and only the initials of the sender will be published. Questions involving patented processes, intricate formulas or estimates of cost cannot be answered. If an immediate answer is important, one will be given by mail when the writer requests it.

In this connection, The Oil and Gas Journal will be glad to publish articles from field men who have devised new methods or improved old ones.

Gas-Oil Ratio in East Texas Not Likely to Show Early Change

Will you please give me the figures showing the average gas-oil ratio in East Texas and the rate at which the ratio is increasing? At what point will the static fluid level stand immediately after the wells cease flowing and how fast will the fluid level drop, assuming the field to be prorated at about 400,000 bbls. daily?—E. O. T.

The gas-oil ratio in the East Texas Field was fixed before the field was discovered and has been fixed since then and it will be a constant until the formation pressure has been lowered to between 618 and 755 pounds per square inch.

This oil was charged with an average of 350 feet of gas per barrel and as that amount of gas did not completely saturate the oil at the pressure of approximately 1,600 pounds and a temperature of about 142° F. there never has been any excess or free gas in the oil sand except in a few isolated portions of the pool where some free gas was encountered, but not accompanying the usual quantity of oil.

There will be no increase in the gas-oil ratio at any future time in the East Texas Field unless certain portions of it are drained of their contents and a pressure below 700 pounds is created so that a portion of the gas in the oil can escape while the oil is still underground.

There is a water pressure on this field estimated at 1,600 pounds and it is reported that some wells outside of the west limits of the field actually flowed salt water. There may come a time when wells may flow salt water within the areas of the oil sand.

It has been reported that west edge wells near Gladewater flowed a mixture of 60 per cent water and 40 per cent oil and others were required to pump when the water contents exceeded 60 per cent. Some have pumped as much as 85 per cent water.

A fluid column composed of 60 per cent water and 40 per cent oil will create a pressure of about 1,428 pounds at the bottom of the well. As the static pressure of the water body is estimated at 1,600 pounds the difference between the flowing column pressure and the static water pressure must represent losses in the movement of the fluid within the reservoir.

As it is impossible to estimate the resistance that will be offered to water movement through this reservoir there is no way of ascertaining definitely at what point the fluid will stand after the wells cease flowing or the rate of fluid drop.

Your last question, "How fast will the fluid level drop, assuming the field to be prorated to about 400,000 bbls. daily?" is not wholly clear.

From all data available it seems that this field was charged with oil and gas by the water drive from the west and as the Woodbine sand to the west of the field is still full of salt water under a pressure of about 1,600 pounds it would seem to follow that as oil and gas are withdrawn the water will replace them in the reservoir, in which event the fluid level will be maintained.

It has been estimated that the rate of water movement through the sand is about equivalent to the rate of withdrawal of 250,000 bbls. of oil per day.

It seems certain that gas-oil ratios have no significance at reservoir pressures above 755 pounds per square inch and the theory of liquid expansion cannot be applied to this field as a means of developing energy so just what effect the higher rate of oil withdrawal will have upon ultimate recovery or water drive is difficult to predict.

This is a rather involved problem and much has been written about it. The one fact that does seem to stand out is that at high rates of withdrawal waste will occur in the reservoir and the ultimate recovery of oil will be reduced and more of it will have to be lifted by mechanical means.

Small Probability of Operating Trucks with Charcoal Gas

I was interested in a statement I heard the other day that experiments were being made with charcoal gas as the fuel for operating oil field trucks and I suppose for any other large types of motor-driven vehicles. Can you tell me about any experiments along this line? I was not able to get any details about what had been done, but it seemed to me that while it was a rather ingenious idea it did not offer much in the way of practical advantages.—T. A. N.

This department has no information concerning experiments with charcoal gas as the fuel for operating oil field trucks or any other motor-driven vehicles in this country. It seems likely that the experiments referred to in the statement you heard were those conducted in China, where charcoal gas, owing to its inexpensiveness and the ease with which it may be obtained is already in successful use as motor fuel, with prospects of expanded utilization. There is small likelihood of its adoption in this and most other countries for the reason you yourself point out, namely that it offers no practical advantages.

The use of charcoal gas for operating motor trucks and buses was demonstrated last year at a conference arranged by the governor of Hunan Province in China, and a report was sent to the Department of Commerce in this country by Julean Arnold, commercial attache in Shanghai.

The demonstrations were made with buses constructed on American light truck chassis. The gas was generated in each vehicle with equipment which consisted of two vertical cylindrical tanks about 18 inches in diameter and 5 feet high; one for producing and one for filtering the gas. This mechanism, which was carried in the rear of the vehicle, weighs about 700 pounds and costs approximately $100. Plans for further perfection of the equipment contemplate a reduction of the weight to about 450 pounds. The space required to carry the equipment reduced the carrying capacity of the test vehicles appreciably.

Commercial Attache Arnold reported the cost of the new fuel as substantially less than the prevailing price of other motor feuls. He pointed out that expansion of modern transportation in the interior of China depends upon cheap fuel, especially in regions where motor fuel costs are prohibitive owing to high transportation charges and tax impositions.

At the time of the demonstrations, Hunan Province was operating 200 motor buses, including 8 powered with charcoal gas, over 700 miles of well-constructed roads, and plans had been made for the construction of 500 miles of additional roads with provisions for connection with adjoining provinces.

The vehicles using charcoal gas in the demonstration had to stop for refueling every 20 to 25 miles. The refueling required only a few minutes and about 5 gallons of charcoal on each stop. In certain parts of interior China there is a plentiful supply of charcoal.

Why Was It Called That?

BUNGALOW

The bungalow, as the familiar one-story dwelling almost universally used in the oil fields of the south and west is called, is believed to have derived its name from the Bengalese "bangla," the native designation for the crudely thatched huts which served as homes. One authority, however, traces the word to the Arabic "baghl," a mule. Foreigners were said to have written the word "buggalow." In its early use in this country the word referred to lightly built, usually thatched or tiled house or cottage of a single story, commonly surrounded by a veranda. It has come to have somewhat wider application.

Concerning Various Underground Conditions and Their Meaning

I would like to have the following questions answered:

1. Does a well making a small volume of gas and an extensive quantity of salt water indicate to any extent the presence of an oil reservoir, especially if the sand is found considerably higher than in other wells drilled within a radius of a few miles?

2. If the Wilcox sand is found compact and dry, to what extent does this condition represent the character of the immediate region?

3. Under what probable conditions would one find a small volume of gas and high bottom-hole pressure?

4. In what way is bottom-hole pressure more accurate in accounting for a potential than head pressure or rock pressure?

5. Are there any strata in Permian red beds which one may use as a criterion in determining a comparative high?—J. W. G.

1. If a hole drilled on a structure comes in as a water well it is generally a fact that it is located downdip and the oil is higher up in the formation. This, of course, assumes that there is oil near the salt water well. Otherwise the formation does not contain oil, or at least the presence of water would be regarded as unfavorable.

2. If the Wilcox sand is dry it certainly would mean that the area is not productive. That is, this particular structure does not contain oil or gas in commercial quantities if the area has been properly tested. One well does not usually fully condemn a structure and as you do not give any information about more than one well it is not possible to make complete answer to this question.

3. It is hard to state under what condition a small amount of gas and oil would exist with high bottom hole pressure in the well. There are several factors that might be considered but without more details any answer to your question would be guess work.

4. It is not contended that bottom hole pressure is more accurate in determining well capacity than open flow, but because it is not always possible under proration conditions now existing in many fields to have true open flow tests bottom hole pressure readings are obtained from which accurate interpretations can be made as to a well's characteristics.

5. The markers usually used in the Permian section are beds in the Wellington or stillwater formations. In the Wellington some of the most prominent are Besdor, Tonkawa and Blackwell datums, and in the Stillwater, Harington lime, Unconsolidated shale, Winfield lime, Fort Riley lime and several others down to the Neva limestone which is given as the base of the Permian in Oklahoma Geological Survey Bulletin 40. However, there is much discussion among geologists as to this classification so it is best to get such information direct from a geologist who can have access to all information necessary to form a reliable opinion.

Not knowing the precise purpose of your inquiries it is necessary to answer them in a general way but if you care to present your problem in more detail it is possible that a more definite reply can ge given. However, you will find much in the literature and especially in articles appearing in The Oil and Gas Journal from time to time to answer many of your general questions.

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TECHNICAL QUESTIONS ANSWERED

By Charles K. Francis, Ph. D., Technical Editor

This department of The Oil and Gas Journal is devoted to the manufacturing branches of the oil industry.

Those connected with the refining of crude petroleum, the manufacture of natural gasoline and closely allied industries are invited to submit their problems to Dr. C. K. Francis, technical editor. The department was created for the purpose of aiding managers, superintendents, engineers, chemists and all those engaged in the various phases of plant operation; also those connected with marketing and utilization of petroleum products.

Questions should be submitted in as much detail as possible.

Inquiries must be signed but only the given initials will be printed. The source of the questions is considered to be confidential.

Questions requiring a dicussion of patents, the use of intricate formulas, extended computations, or cost estimates cannot be considered.

When the matter is of general interest the reply will be published within a reasonable time.

Yield of Straightrun and Cracked Gasoline From Oil Refined

Will you kindly give me a statement showing the percentages of straightrun and cracked gasoline obtained from crude oil in the United States? If convenient, I would like to have this for several years.—F. E. S.

The U. S. Bureau of Mines has furnished reports showing the source of gasoline since 1918 as given in the table:

GASOLINE YIELD FROM OIL REFINED

Year	Refinery method — Straightrun per cent	Cracking per cent	Total output
1918	22.7	2.6	26.1
1919	22.5	2.8	26.1
1920	22.6	3.5	26.8
1921	22.6	4.5	27.7
1922	22.8	6.0	29.5
1923	24.0	6.0	31.0
1924	25.0	6.2	32.1
1925	23.1	9.3	35.1
1926	22.9	12.0	38.5
1927	23.8	12.2	39.9
1928	24.0	13 4	41.3
1929	24.8	14.5	44.0
1930	24.2	17.7	46.6
1931	24.6	19.7	48.2
1932	23.8	20.9	47.9

It will be noted that there is a small difference between the sum of the straightrun and cracked gasoline percentages and the total. This difference represents the quantity of natural gasoline used at the refineries for blending with the refinery products.

With practically no cracked gasoline marketed in 1914 the total yield of gasoline from the barrel of petroleum was 18.2 per cent. Since then the cracking process has furnished an increasing proportion each year and natural gasoline has contributed a large part of the desirable, and necessary for motor operation, more volatile portion.

See this department, issue of May 11, 1933.

Sulphuric Acid Treatment for Lubricating Oils Outlined

I have some oil with 80 per cent bright stock content and wish to know how to bring the color out on this oil. It is asphalt base with no wax. Would like to know what chemicals to use and where they may be purchased for a small plant making about 15 barrels a day.—R. M. G.

The method for the purification of any particular lubricating oil stock must be adjusted to the characteristics of the oil. The process suitable for small quantities involves treatment with sulphuric acid and filtering through fuller's earth. The exact conditions must be determined by experiment.

The conventional treatment includes the application of 60 to 66 degrees sulphuric acid at slightly elevated temperatures.

The quantity of acid required may vary from about 8 to 60 pounds per barrel, which is applied in several treatments. The acid is first applied in a small quantity, say at the rate of 1 pound per barrel, and then following in 5 to 10-pound lots for the largest treats and from 2 to 4 pounds at a time, when only small quantities are required. The acid is kept warm and agitated while adding the acid, then allowed to settle when the action is complete. The sludge is drawn off after each treat. The final step may include a slight alkaline wash, with a caustic soda solution at the rate of about 1 pound caustic per barrel.

The acid treatment is followed by filtering to color through fuller's earth in a percolating filter.

The preliminary investigation should be made on hand samples under the supervision of a chemist who is experienced in the treatment of petroleum oils.

There are several factors to be considered when treating a lubricating oil. The temperature during the acid stage should not be too high; because high temperatures tend to cause high losses, the formation of objectionable sulphuric acids and loss of color. The proper point to stop the settling is important for long contact causes "burning" and the secondary reactions make it difficult to get good results by the subsequent steps. The alkaline wash should be conducted in a second agitator tank to avoid any contamination from color compounds present in traces of the sludge. Small quantities of sulphuric acid and caustic soda may be purchased through your nearest dealer in heavy chemicals; some drug houses handle these.

It should be noted that while viscosity and color are important characteristics for bright stock, there are additional properties that must be considered. The oil must be neutral in reaction, the flash is high, the sulphur content is low and an important specification, usually watched very closely, is the percentage of Conradson carbon. The bright stocks are the most carefully refined of the lubricating oils. This is reflected in the market price of the oil, so that scarcely more than a trace of any impurity remains in the finished oil. It does not appear reasonable that such high grade oil could be profitably made on a small scale.

Sediment in Fuel Oil and Fluxing Conditions

Does the composition of the sediment in fuel oil have any relation to the softening and melting of furnace walls, when this fuel oil is burned? We are burning a fuel oil from our refinery tanks which contains about 4 per cent solids.—W. G. H.

The sediment found in most crude oils often contains sand, lime, magnesia and salt, and these may be concentrated in the fuel oil. The chemistry explaining how such substances unite at elevated temperatures with other substances is not complicated.

Acids and alkaline substances are opposite which unite to produce neutral substances, called salts. The alkalies are called basic materials. While sulphuric acid (H_2SO_4) unites with the basic substance lime (CaO) to form calcium sulphate ($CaSO_4$) and water (H_2O); a material like sand, (silica, SiO_2) will also combine with lime to form calcium silicate ($CaSiO_3$). Both of these are neutral salts and melt at relatively low temperatures, in fact such basic materials as lime, magnesia and salt are well known fluxing materials commonly used in the smelting of ores to cause the extraneous materials to melt and separate from the metal. It is, therefore, easy to reason that when such materials are contained in a fuel oil they will be carried in the flame to strike the walls of a furnace where they unite with the silica of the fire brick and flow off as a slag.

A fire brick may be made to withstand a high temperature but it would soften and melt away in the presence of fluxing materials carried in the flame from the fuel. It is not sufficient when selecting brick for a furnace to know that it will withstand the working temperature but the purity of the fuel must be a primary consideration.

Treating Light Distillate With Sulphuric Acid

The crude we are handling carries about two per cent sulphur and both S. R. and cracked gasolines have to be finished with acid. Is it an advantage to caustic wash sour gasolines before giving them the acid treat?—A. G.

The kind of sulphur compounds that may be present in a light oil distillate depends not only on the type of crude oil being processed but the age of the distillate. A fresh product, direct from the stills, will usually contain more hydrogen sulphide than one that has been held in storage. A raw gasoline or kerosene that has been held in storage is liable to contain less hydrogen sulphide but more free sulphur, mercaptans and the more complex compounds of sulphur that are not so easy to remove than the simpler forms.

Preliminary washing with caustic soda is usually to be preferred, as this chemical combines with several sulphur compounds and thus removes them. When this is not done, larger quantities of acid are required to obtain a good color and a stable product.

Experiments where the gasoline from a crude oil containing 1.25 per cent sulphur was treated with acid with and without caustic soda prewashing were reported by O. C. Smith in The Oil and Gas Journal, March 5, 1931. The blend of all streams tested—color 27; doctor test, sour; copper strip, positive. Color after three hours in dark, 22, pink; after three hours in sun, 15, pink.

The treating conditions are explained in the following, as quoted from this article:

Precaustic wash easily and effectively removes the hydrogen sulphide with the formation of sodium sulphide. Sodium sulphide in turn will combine with small amounts of elemental sulphur and forms poly sulphides, thus removing from the naphtha both the hydrogen sulphide and elemental sulphur. As shown, the gasoline is also increased in its stability, but even more than the increase of the stability is the increased ease with which the gasoline can be treated, and a stable product obtained.

Treat No. 1—Caustic Washing Only

One gallon per barrel of 30 Be. caustic soda 10-minute agitation.
Water washed four times with quantity equal to gasoline.
Strip—negative.
Color— +28.
Doctor—sour.
Three hours in sun, +17, pink.
Three hours in dark, +26, slight pink.

Treat No. 2—Acid Treatment After Precaustic Wash

One-fourth pound of new 66 Be. acid per barrel with 25-minute agitation.
One gallon per barrel of 10 Be. caustic with 10-minute agitation.
Water washed as before.
Strip—negative.
Color— +30.
Doctor test—slightly sour.
Three hours in the sun— +29.
Three hours in the dark— +30.

In order to show the difference between the treatment of crude naphtha with and without caustic washing, I give Treat No. 3, which shows the amount of acid used to get a stable product with no caustic wash.

Treat No. 3—Acid Treatment With No Precaustic Wash

Three pounds of new 66 Be. acid with 25-minute agitation.
One gallon per barrel of 10 Be. caustic with 10-minute agitation.
Water washed as before.
Strip—negative.
Color— +30.
Doctor test—sour.
Three hours in the sun— +28.
Three hours in the dark— +30.

Books Relating to Lubricating Oils and Greases

We are jobbers of lubricating oils and greases. Could you suggest any books on the manufacture of these products? Is there any publication giving specifications for lubricating oils and greases?—A. H. B.

The manufacture of lubricating oils and greases is described in the books relating to the refining of petroleum, such as American Petroleum Refining, by Bell, at $5; Petroleum Industry, two volumes, by Day, at $15. Good books about lubricating oils and greases are: Practice of Lubrication, by Thomsen, at $6; Power Plant Lubrication, by Osborne, at $3.

The manufacture of grease is described in Lubricating Greases, by Klemgard. This book contains many formulas for making different greases; also, testing methods and uses. It is the best book on greases and sells for $5.50.

These books may be obtained through the Book Department of The Oil and Gas Journal.

NATURAL GAS DEVELOPMENTS

Lone Star Gas Co. Asks Injunction in Fort Worth

FORT WORTH, Tex., June 26.—In applying for an injunction to prevent the city of Fort Worth from condemning and taking over its local gas distributing property, counsel for the Lone Star Gas Co. argued before the Second Court of Civil Appeals that the municipality lacks both the money and the legal right to take this action.

"The laws protecting the rights of property provide that the money must be supplied in advance before the system can be taken over and a mortgage placed upon it," argued Roy Coffee, of Dallas, gas company counsel. "To tell the citizens that they can take the company's property without cost, and without responsibility or liability is misleading them and amounts to political sophistry," he declared.

"The people of Fort Worth should be accurately informed of what they are about to undertake," the attorney stressed in his argument before the court, hearing the utility's appeal from local District Court in the case. "The cost of the so-called Fort Worth rate case—costing the city, I am informed, about $150,000—would be only a fraction of the cost of carrying on the preliminaries of condemnation.

"It would cost the city between $300,000 and $400,000 to know what part of the gas company's properties to take. It would require the time of competent engineers for several months to value the property, and to separate it from the portion of the property lying outside the city but necessary to supply gas from 32 different fields.

"It is misleading to the public to tell it the city council, by ordinance, can do what is contrary to statutory and constitutional authority."

City Attorney R. E. Rouer, presenting the city's argument, restressed the city's position and intentions in taking over the distributing property after a futile attempt to obtain lower rates.

SOUTHWEST GAS UTILITIES

Southwest Gas Utilities Co. has filed an answer in Chancery Court at Wilmington, Del., to a receivership suit of a New Jersey creditor and bondholder, declaring it is able to meet all maturing obligations with the exception of interest and sinking fund payments on its first lien and secured sinking fund bonds, 6½ per cent series, and interest on its outstanding $144,000 five-year 6 per cent collateral notes due October, 1934.

The answer states that a protective committee of holders of the first lien bonds is now examining properties of the company and its subsidiaries to devise a method of reorganization. The answer denied reorganization can be possible only with appointment of a receiver and avers that receivership would greatly interfere with and delay possible reorganization.

LOUISVILLE GAS FRANCHISE

The Louisville Gas & Electric Co. has refused to accept the provision of a gas franchise as adopted by the board of aldermen and has served notice on the city of Louisville that the matter would be taken into court. The gas franchise called for a five-year length. Gas is to be natural eight months of the year and mixed for four months with no winter rates. Although the company could refuse to bid on the gas franchise, which contained such provisions that only it would be able to meet the requirements, and could stop service when the present franchise expires, the company has no intention of ceasing service, with or without a franchise. The ordinance provided that the company furnishing gas must also supply electricity, thus binding up the two services.

Dresser Company Buys Large Gas Boiler Firm

To still further increase its usefulness to the gas industry, S. R. Dresser Manufacturing Co. has acquired the facilities and business of the Bryant Heater & Manufacturing Co. The purchase of this Cleveland concern, by the world's largest and oldest builder of pipe couplings, was consummated on June 15. Operation of both companies is now under Dresser direction. The Dresser chairman, F. A. Miller, and the Dresser president, H. N. Mallon, have taken on like responsibilities in the Bryant company.

In this latest acquisition by Dresser, gas men see a strong continuation of the Dresser program of expansion that began with the founding of the company at Bradford, Pa., in 1880. Since that time, Dresser has had much to do with the rise of gas transmission and distribution to its present position of importance and modern efficiency. High-pressure gas lines, more than 100,000 miles of them, have been constructed with Dresser Couplings, and the company has also developed complete series of clamps, sleeves and fittings that have been widely used for pipe line maintenance. In 1931, seeking additional fields for Dresser Couplings to "dominate," the Bradford company organized a complete waterworks division, and also formed the Dresser Manufacturing Co., Ltd., in Toronto. And now, through its ownership of the Bryant company, Dresser intends to contribute very materially to the building of greater gas loads in this country. Dresser believes that air conditioning, like house heating, calls for the utilization of gas fuel.

In choosing the Bryant Heating & Manufacturing Co. as a strong medium through which to expand, Dresser gave special consideration to Bryant's leadership in present gas-boiler sales and also to the fact that Bryant's merchandising experience had already been of value to the greatest number of gas companies. New products and improvements are under way, and others will follow as fast as manufacturing and marketing conditions are ready.

LOWERS COLUMBUS RATE

COLUMBUS, Ohio, June 26.—The Ohio Supreme Court has reversed the utilities commission order fixing a 55-cent gas rate in the Columbus gas case and has upheld the 48-cent rate held adequate in the minority report of John W. Bricker, then a utilities commissioner and now attorney general.

Three subsidiaries of Columbia Gas & Electric Corp. supply Columbus with gas, Columbia Gas & Fuel Co., United Fuel Gas Co. and Ohio Fuel Gas Co. The gas rate controversy has been before the utilities commission about three years, during which gas rate changes in many Ohio cities were held in abeyance.

WILLIAM L. PERRIN DIES

ROCHESTER, N. Y., June 26.—William L. Perrin, pioneer in developing the oil fields of southern New York State and Pennsylvania, died at his home here at the age of 91. Mr. Perrin, born in Conesus, went as a young man to Titusville, Pa., where he engaged in the oil business, and later did similar work in Olean, N. Y. In 1887 he went to Louisville, Ky., and worked in the installation of natural gas there.

Pipe Line Not Required to Pay Iowa License Fee

DES MOINES, Iowa, June 26.—Pipe lines cannot be required to obtain a state permit and pay a license fee annually for the right to carry on interstate commerce in Iowa, the Iowa Supreme Court held June 20, in holding the revenue and permit provisions of the Iowa pipe line act unconstitutional. Such exactments, the court held, are burdens on interstate commerce.

The decision upholds a similar pronouncement of the Lee County, Iowa, district court, in the case of State of Iowa vs. Stanolind Pipe Line Co. The action was for injunction to restrain the company from using its lines without a permit. The lower court refused the injunction.

Commenting on the case Justice Kindig said: "In the face of the Federal constitution, interstate commerce cannot be burdened or restricted by the legislature of a state. Iowa, therefore, cannot require that the appellee must pay an annual license fee for the right of carrying on interstate commerce in the state of Iowa." The state, however, he said, may enact inspection laws, charge for inspection, and for use of its highways. The pipe line law was enacted in 1931 for revenue purposes.

ANTIMERCHANDISING BILLS

Three antimerchandising bills presented for consideration to the Oregon legislature were killed in committee. A similar bill was presented in Arizona but was withdrawn following an agreement between utilities and dealers of the state, whereby merchandising of small appliances will be left to dealers in cities, and utilities will sell all lines in rural territory. The bill to prohibit the sale of merchandise by public utilities was defeated in the Wisconsin assembly.

RUMANIAN CARBON BLACK PLANT

Imperial Chemical Industries, Ltd., has completed arrangements for the construction of a carbon black plant in Rumania. The initial plant will be established in the Prahova oil fields. An American company recently negotiated for a concession to operate a natural gas pipe line from the Prahova Valley to Bucharest, but it is understood this project has been abandoned. Imperial Chemical Industries plans to capture some of the European business in carbon black now supplied from the United States.

APPALACHIAN ORDERED SOLD

WILMINGTON, Del., June 26.—An order directing the sale of all assets of the Appalachian Gas Corp. at 11 a.m. July 17 at Wilmington was filed in Chancery Court. No bid less than $825,000 is to be accepted. The assets are to be sold in one lot. The court's order holds that the proposed plan of reorganization of the corporation dated October 25, 1932, is equitable and that the interest of all creditors and stockholders will be best served by a prompt sale of all assets.

CALEDONIA GAS FIELD

CHATHAM, Ontario, June 24.—In Haldimand County, Ontario, White Oil & Gas Co. of Sarnia has been carrying on systematic development work 7 miles from Caledonia and 3 miles east of Jarvis. Nine tests for gas, all fair producers, have been drilled and No. 10 was recently started. The company has a 10-year contract with the Dominion Natural Gas Co. Production is secured at comparatively shallow depth, and the wells indicate a substantial gas reserve. Officers are: President, C. M. Carruthers; vice president, W. A. Saurwein; secretary-treasurer and manager, Don White; directors, John H. Danner, M. G. Harris, and Thomas C. Sloane.

Mixed Gas to Be Served to Des Moines by July 1

Des Moines Gas Co., Des Moines, Iowa, is changing to 800 B.t.u. mixed natural and manufactured gas. The agreement to serve higher heat content gas is the result of recent rate schedule changes in Des Moines. The new gas will be turned into the mains about July 1.

Before changing to the new gas, engineers of the company set up a demonstration of four gas ranges, each burning gas of different B.t.u. content. Three pounds of water were placed in a container on each range simultaneously, and it was proven as the water was heated to a certain temperature that the number of therms used was the same in each of the four cases, no matter what the B.t.u. content of the gas.

UNION GAS CO. MEETING

CHATHAM, Ontario, June 24.—The annual meeting of the Union Gas Co. of Canada was held at Toronto on June 20 when the following directors were re-elected: Eugene Coste, D. A. Coste, G. R. Cotrelle, W. L. Duffield, S. A. Morse, R. L. O'Brian, F. E. Ogden, W. J. Vanston, Arthur F. White President S. A. Morse reported to shareholders a 6½ per cent increase in sales. While average prices for gas last year were 5 per cent lower, the profits had increased from 40 cents to 63 cents per share, largely the result of operating economies. The scheme to install gas furnace on a rental basis has resulted in some 900 installations.

NEW GAS ORGANIZATION

CHATHAM, Ontario, June 24.—North American Gas Co. has been organized at Edmonton, Alberta, to acquire the assets of the Atlantic Keystone Petroleum Co., Ltd., and 49 other gas and oil companies. J. W. Heffernan, K. C., of Edmonton, is president, assisted by W. D. Farley of Windsor, Ontario. It will operate as a gas utility company, controlling 24 gas companies in the eastern states, including West Virginia, Pennsylvania, Ohio and Kentucky and also companies in Kansas, Oklahoma, Arkansas, Louisiana, Colorado, New Mexico, Texas and Wyoming.

AMARILLO GAS ODORIZED

The Amarillo Gas Co., Amarillo, Tex., has installed equipment for odorizing the gas in its distribution system to assist customers in detecting leaks. The company officials believe the extra expense incident to odorizing the gas will be more than repaid by the benefits the customers receive.

DIRECTOR FOR LOUISVILLE GAS

CHICAGO, June 26.—Menefee Wirgman was elected a director of the Louisville Gas & Electric Co. of Kentucky and the Louisville Gas & Electric Co. of Delaware at a meeting of the boards of directors of both companies. He fills a vacancy created by the resignation of Donald McDonald, Jr.

BUYS MACON COMPANY

Central States Gas Utilities Co. of Kansas City, Mo., affiliated with the Panhandle Eastern Pipe Line Co., has been given permission by the Missouri Public Service Commission to purchase the capital stock of the Macon Gas & Electric Co., Macon, Mo.

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PERSONAL PARAGRAPHS

J. R. Travis, oil refiner, of Duncan, Okla., was in Tulsa several days last week.

• • •

Dr. Edmond Retailliau, research engineer for the Shell Petroleum Corporation, sailed for Europe last Saturday.

• • •

Ivan Salnikov, petroleum engineer with the Carter Oil Company at Tulsa, is being transferred to the Greater Seminole area on July 1.

• • •

J. C. E. Trudeau, director of the Champlin Refining Company of Montreal, was visiting in New York last week, en route for Europe with his family.

• • •

Sir Francis Price and E. H. Cunningham Craig, of London, England, arrived in Calgary, Alberta, recently, and will spend some time in the Alberta fields.

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E. J. Sadler, vice president of Standard Oil Company (New Jersey), has resigned the presidency of Creole Petroleum Corporation, being succeeded by Eugene Holman.

• • •

A. Beavan, a well-known member of the staff of the Burmah Oil Company, Ltd., in London, left the service of the company recently. Mr. Beavan is in his seventy-first year.

• • •

Withrop Rockefeller, fourth son of John D. Rockefeller, Jr., has taken a job in the personnel department of the Bayonne refinery of the Standard Oil Company of New Jersey.

• • •

Herman Sandvoss, chief surgeon for the Standard Oil Company of Venezuela, arrived in New York last week from Europe, en route back to his post. He was accompanied by Mrs. Sandvoss.

• • •

William F. Humphrey, chairman of the board of the Tide Water Associated Oil Company, and president of the Associated Oil Company of California, has returned to San Francisco from New York.

• • •

Prof. William A. Bone, D.Sc., Ph.D., F.R.S., of the Imperial College of Science and Technology, South Kensington, London, has been awarded the medal of the Society of Chemical Industry in recognition of his researches into the mechanism of combustion

• • •

W. S. Farish, former president of the Humble Oil & Refining Company, and now chairman of the board of the Standard Oil Company (New Jersey), has been the guest of honor at a number of banquets in Houston, Tex., preceding his departure for New York to assume his new duties.

• • •

Arno Behnke, in the production department of the Amerada Petroleum Corporation, Fort Worth, Tex., and family, have motored to Chicago to attend the Century of Progress Exposition. He will also attend the meeting of the American Institute of Mining and Metallurgical Engineers.

• • •

W. S. Fitzpatrick, vice chairman of the executive board of the Consolidated Oil Corporation of New York City, formerly chairman of the board of directors of the Prairie Oil & Gas Company, was in Wichita, Kans., during the week attending the wedding of his granddaughter, Miss Emile Ewers, of Wichita.

• • •

E. T. Monsour, who for several years has been paleontologist for the Humble Oil & Refining Company at Monterrey, Mexico, has been appointed chief paleontologist of the combined subsidiaries of the Standard Oil Company (New Jersey) in Mexico, making his headquarters in Tampico. Mr. Monsour, before going to Monterrey, was connected with the paleontological department of the Humble company at Houston, Tex.

Clyde M. Becker, consulting geologist of Chickasha, Okla., is leaving for Hanover, Grant County, New Mexico.

• • •

Harold F. Sheets and F. S. Fales, vice presidents of Socony-Vacuum Corporation, sailed from New York for Europe, Saturday.

• • •

Campbell Hunter, of London, England, arrived recently in Calgary, Alberta, to inspect drilling operations on the Hunter Valley Oil Company's No. 1 well, west of Olds.

• • •

W. C. Morgan, state manager for the Hughes Tool Company, is slowly recovering from the effects of an automobile accident suffered some time ago in Oklahoma City, Okla.

• • •

Frank R. Clark, of Tulsa, chief geologist for the Mid-Kansas Oil & Gas Company, and president of the American Association of Petroleum Geologists, addressed the Kansas Geological Society at Wichita Saturday night.

• • •

H. R. Cullen, independent oil man and operator, Houston, Tex., is spending the summer vacation touring the Canadian Rockies and Alaska, in company with his family. Before returning he will visit the East, including the World's Fair at Chicago on his itinerary.

Men of the Industry

C. O. STILLMAN

C. O. Stillman, retiring president of Imperial Oil, Ltd., is one of the pioneers of the petroleum refining industry in Canada. His retirement ends an active career of 52 years in the oil business, in the course of which he rose from a position in a refinery yard to the presidency of Canada's largest refining enterprise. He was appointed a director of Imperial Oil, Ltd., in 1890, and in 1911 had advanced to vice president. Eight years later he was named to succeed the late W. J. Hanna in the presidency.

Mr. Stillman built Imperial Oil's first refinery in Sarnia, Ontario, in 1897, and in later years had charge of the construction of other Imperial refining plants which now form a continentwide chain across Canada.

Earl B. Gilmore and Clarence S. Beesemyer have been elected president and vice president respectively of the Gilmore Oil Company.

• • •

Grenville Tierney, land man in Kansas for the Amerada Petroleum Corporation, has been transferred to the Gulf Coast district.

• • •

C. W. Delancey, assistant superintendent of production, Houston, Tex., has been in Chicago, spending his vacation at the World's Fair.

• • •

David and Alex Holmes and Frank Racher, of Petrolia, Ontario, left recently for British Columbia, where they will drill a test for Columbia Oils, Ltd., in the Sage Creek area.

• • •

J. M. Evans, manager of lubricating oil sales for Associated Oil Company, was recently elected chairman of the northern California section of the Society of Automotive Engineers.

• • •

W. Green, of E. A. Gibson & Company, Ltd., oil and tanker brokers of London, England, is visiting the New York market. He will visit the oil fields in the Southwest before returning to Europe.

• • •

R. C. Shaw, division manager of the Stork Engineering Company, Inc., Oklahoma City, Okla., is now spending considerable time in the East Texas Field in connection with pumping installations.

• • •

Carl B. Everett, oil producer of Gladewater, Tex., and ardent aviation fan, was chairman of the Longview Airport dedication on June 22. Mr. Everet's plane won first place in the second race of the day.

• • •

Dr. Donald G. Barton, Houston, Tex., addressed the Dallas Petroleum Geologists at a meeting held at Hyer Hall, Southern Methodist University, Dallas. Doctor Barton read a paper on "The Alignment of the Gulf Coastal Salt Domes."

• • •

R. H. Hornidge, of the Union Oil Company; R. L. Minckler, of the General Petroleum Corporation, and D. S. Kilgour were recently elected directors of the Los Angeles Petroleum Accountants Society to serve for a period of three years.

• • •

C. G. Condra has been transferred from the Tulsa office to the Fort Worth, Tex., office of the Stanolind Oil & Gas Company to fill the place left vacant by the resignation of Paul Langford, who has joined the legal staff of the Shell Petroleum Corporation in Houston, Tex.

• • •

Harry G. Schad, recently promoted to the post of traffic manager for the Atlantic Refining Company, was the guest of honor at a luncheon tendered him by shipping friends from New York, Philadelphia, and Baltimore at the Manufacturers and Bankers Club, Philadelphia, last week.

• • •

Paul W. Fenton, purchasing agent of the Tide Water Oil Company's Mid-Continent division, has been transferred to the company's general headquarters in New York City and placed in charge of purchasing there. C. H. Bickell, who has been in charge of purchasing for the past 25 years, remains as general purchasing agent.

• • •

Governor Landon of Kansas has announced the appointment of Seth G. Wells, state oil inspector, to the state board of administration, effective July 1. Mr. Wells served as state oil inspector for eight years, longer than any man ever holding the position. He will be succeeded by A. W. Logan of Quenemo, who becomes head of the new department of inspections and registration under the 1933 law consolidating the fire marshall, hotel commissioner, cigaret and oil inspection departments. Mr. Logan will have 22 men to accomplish the work now being performed by 87 inspectors.

Hints of Practical Value

By L. G. E. BIGNELL
Petroleum Engineering Editor

Gauging Gas Wells

Methods of determining the "open-flow" capacities of gas wells have been studied for many years. Since regulatory bodies have used such capacities as a basis for regulations, and since many contracts between the seller and purchaser of natural gas also use such capacities as a basis of certain features of the contracts, the determination of these capacities to the satisfaction of all parties concerned is of importance.

Several considerations are essential in using any particular method of determining "open flow": First, results should be as accurate as possible; second, testing procedure should be simple; third, interpretation of results should be easily made; fourth, waste of gas should be held at a minimum; and fifth, the safety of both the operator and to the well should be taken into account.

Several methods have been advocated for determining "open flow" and a brief description of three of them will be given. They will cover minute-pressure rise, the pitot tube and the so-called back pressure method.

Minute-Pressure Method

The minute-pressure method of determining "open flow" is discussed in detail by Thomas R. Weymouth in Vol. 34, Transactions of the American Society of Mechanical Engineers, in his paper entitled "Natural Gas Measurement."

It is simply an approximate method, and can be used occasionally when a new gas well is brought in. In making such a test, the well is first opened wide to the atmosphere and the pressure head allowed to blow off. The well is then "shut in" as quickly as possible, and after one minute the pressure to which it "builds up" is noted.

Calculations then are made of the "open flow" on the assumption that the open flow is proportional to the rate of "build-up." The following assumptions are necessary: First, that the pressure in the casing at the end of one minute is uniform; second, that under flowing conditions before the well is shut in the pressure in the casing is atmospheric; and third, that isothermal conditions exist.

Under such assumptions, the "open-flow" volume, "Q," in cubic feet per day, can be expressed by the formula:

$$Q = \frac{1{,}440\, P_1\, V_1}{P_o}$$

Where:

P_1 = Gauge pressure in the casing at the end of one minute,
V_1 = Volume of casing in the well, cubic feet,
P_o = Atmospheric pressure, per square inch, absolute.

If the atmospheric pressure is 14.4 pounds per square inch, this formula reduces to the simple form:

$$Q = 100\, P_1\, V_1$$

A convenient table and chart for facilitating calculations are given in Lichty, "Natural Gas," pages 72 and 73, published by John Wiley & Sons, Inc., New York City.

Pitot Tube Method

The pitot tube is an instrument for measuring the rate of flow of gas by determining the velocity of the flowing gas from its momentum. It consists essentially of a small U-shaped tube, one end of which is inserted in the stream of flowing gas, just level with the pipe or tubing and at either one-third or one-half of the pipe or tubing diameter from the outer edge. The plane of the opening of the tube is held at righ angle to the flowing gas.

To the other end of the U-shaped tube is attached a mercury manometer, water manometer or spring pressure gauge, depending upon the pressure that is measured. The pressure thus measured is the velocity or impact pressure of the flowing gas and is the basis for calculating the rate of delivery from the well under "open-flow" conditions.

Tests discussed by Walter Reis in the November, 1929, issue of "Western Gas" point out that when the impact pressure on the pitot tube taken at the center of the pipe exceeds 15 pounds per square inch gauge that the rate of flow can be calculated from the formula:

$$Q = 23.81\, d^2\, P$$

Where:

Q = Rate of flow, thousands of cubic feet per day,
d = Diameter of the casing of flow string, inches,
P = Absolute impact pressure, pounds per square inch.

For pressure less than 15 pounds per square inch, the following formula is applicable:

$$Q = 182.6\, d^2\, \sqrt{P_g}$$

Where P_g = gauge pressure, pounds per square inch.

Tables to facilitate numerous routine calculations can be based on the above formulas.

Back Pressure Method

The back pressure method of determining open flow without opening well wide to the atmosphere is discussed in detail in U. S. Bureau of Mines Reports of Investigations, Serials 2929 and 2930, "The Study of a Fundamental Basis for Controlling and Gauging Natural Gas Wells," by H. R. Pierce and E. L. Rawlins.

The method is based on the relationship between the rate of flow, "Q," and the pressure factor $(P_f^2 - P_s^2)$ where P_f is the absolute formation pressure under "shut-in" conditions and P_s the back pressure at the sand when the well is flowing.

It has been found that when values of "Q" are plotted on logarithmic paper against the corresponding values of $(P_f^2 - P_s^2)$ that the relationship is expressed by a straight line. This straight line, established by data observed at high back pressure and comparatively low rates of flow can be extended to determine rates of flow under any conditions of pressure.

The test procedure is simple. First, shut in the well and read the pressure at the well head when conditions are stabilized. To this pressure, add the barometric pressure and the weight of the column of gas to determine the value of P_f or the shut-in formation pressure. Then open the well partly and measure the rate of flow at an observed back pressure at the well head. To this observed back pressure add the barometric pressure plus the weight of the gas column plus the friction drop in the flow string to determine P_s or the absolute back pressure at the sand. Repeat this procedure at least twice and determine values of "Q" corresponding to different back pressures. Then calculate the values of the pressure factor $(P_f^2 - P_s^2)$ corresponding to these different rates of flow.

Finally, plot on logarithmic paper the values of "Q" against the corresponding pressure factors $(P_f^2 - P_s^2)$ and extend the resulting straight line to read the open flow corresponding to the square of the formation pressure or P_f^2. This is the "absolute" open flow, which, in turn, can be converted to the rate of flow that can be delivered through any size of flow string.

Charts to facilitate calculations are given in Bureau of Mines R. I. Serial 2929 or tables can be prepared to facilitate routine calculations.

IMPORTANT BOOKS
for the Oil Man's Library

"CHEMICAL REFINING OF PETROLEUM"

This excellent and outstanding book by V. A. Kalichevsky and B. A. Stagner, just issued, deals with the action of various refining agents and chemicals for the manufacture of commercial petroleum products.

Several books relating to petroleum refining have appeared; these have discussed the subject largely from the standpoint of physical conditions; heat and liquid flow, distillation and the cracking art have been well covered. But this book presents information which explains chemical changes. Such data are not easy to locate, being scattered through the literature and the many patents.

The authors have had the benefit of practical experience through their association with large refining units, the Socony-Vacuum Corp. and the Union Oil Co. of California. Many processes are explained with the care and in the detail only possible by those who are thoroughly acquainted with the operation.

The book, 6¼x9¼, of 451 pages, is well printed, and the subjects are presented in 13 chapters, with supplements describing the patents, special tables and a glossary. A mention of the main subject divisions of this book will serve to indicate the wealth of information that is made readily available. These are: Treatment with sulphuric acid, alkaline reagents, sweetening and elimination of elementary sulphur, adsorption, and solvents in refining. All known methods for sulphur control are described. Other subjects relating to use are: Detonation, antiknock agents, inhibitors, gum, and deterioration of lubricating oils.

This treatise contains so much useful information that no adequate report of its contents is possible in a short review. A brief outline of several chapters is given by way of example.

The importance of sulphuric acid as a treating agent is recognized by the 84 pages devoted to the subject of sludge and acid recovery. Under the chemistry of the sulphuric acid treatment the action on paraffins, naphthenes, aromatics, unsaturated hydrocarbons, resinous and asphaltic substances is discussed.

The classification of the products requiring sulphuric acid treatment includes: Light distillates, lamp oils, lubricating oils, wax and the special products, such as solvents, medicinal oils, soluble oils, transformer oils and tree sprays. The influence of different strengths, quantity and temperature of acid is given in considrable detail, and demonstrated by reports of experiments and practical operations.

The sections on the treatment with alkaline reagents, sweetening, adsorption and solvents are especially complete. These include, in addition to the doctor treatment, sodium carbonate, ammonia, lime, magnesium hydroxide, sodium silicate, soaps, hydrochlorite, alcohols, copper, cadmium, sulphur dioxide, percolation, contact filtering and the special solvents mentioned in recent patents.

The material relating to knock rating shows the progress made from the early investigations of Ricardo and others to the present octane standard. The influence of the several knock inhibitors is explained. An excellent chapter is one relating to gums.

This book is a notable contribution to the literature on modern refinery practice. It fills a very definite need in a manner which refinery executives, chemists and technologists will be quick to appreciate; the reliable information it contains will be found invaluable for use in every refinery.

"Chemical Refining of Petroleum" may be purchased through the Book Department of The Oil and Gas Journal at the regular postpaid price of $7, payable by check or money order before book is forwarded.

Seven Million-Foot Gas Well in Geneva Field

By SPECIAL CORRESPONDENT

CORNING, N. Y., June 24.—The largest gas well in the Geneva Field, in Ontario County, has been shut in after blowing wide open long enough to indicate that it was a 7,000,000-foot producer. It is Agnew & Fisher's No. 1 Finn. It is producing from sand at 1,100 feet.

The State of New York is getting ready to receive bids for leases on state-owned land in Steuben County, near where gas was found in the Oriskany sand earlier in the year. The state legislature last winter passed a law giving the conservation commission authority to lease the land, which is being reforested, but making it necessary for the lessee to start drilling immediately after the lease is signed. The successful bidder must have shown geological evidence of the possible existence of oil or natural gas on the land, and must post an acceptable bond that drilling will be carried on diligently to completion of the well. The conservation commission is working on a form of lease, to be offered to the oil and natural gas industry. It is expected to be an unusual document.

The well being drilled by the North Branch Development Co., No. 1 Frank Moe, in Potter County, Pennsylvania, will be the first test on the Harrison anticline located between the Tioga Field in Tioga County, and the Hebron Field in Potter County, both in Pennsylvania. Wharton & Van Gilder, geologists of Coudersport, Pa., located the well. Three Rivers Corp. has an interest in the test and has 1,000 acres of leases surrounding it. Those interested believe that if the Oriskany sand is present it will be found productive.

M. F. ROBERTS DIES

NEW YORK, June 24.—Matthew F. Roberts, 68, purchasing agent for the Atlantic Refining Co., died suddenly while playing golf last week on the east course of the Merion Cricket Club, Haverford, Pa.

Summary of Operations in All Fields for May, 1933

Summary of Completed Work

Field—	Comp.	Prod.	Dry	Gas
Eastern	74	303	13	14
Central Ohio	14	30	4	*
Lima	6	453	0	1
Indiana	7	38	0	5
Michigan	23	5,100	3	3
Kentucky	13	280	9	0
Alabama	1	0	1	0
Kansas	30	16,889	17	2
Oklahoma	98	22,339	36	8
N. Cent. Texas	75	746	52	4
East Texas	125	7,891	22	0
West Texas	11	668	3	0
Tex. Panhandle	17	1,907	1	*
S. W. Texas	59	3,988	28	2
Texas Gulf	112	120,894	22	1
Louisiana Gulf	17	8,535	8	1
N. Louisiana	37	1,316	26	2
East Tex. Gas	4	0	4	0
Arkansas	6	150	5	0
Mississippi	3	0	1	2
New Mexico	8	14,036	2	0
Wyoming	4	50	1	1
Montana	2	195	0	0
Total May	753	285,836	268	69
Total April	747	266,162	241	48
Difference	6	60,326	27	12

Summary of Work Under Way

Field—	Rigs	Drlg.	Ttl
Eastern	52	126	178
Central Ohio	24	61	85
Lima	2	20	22
Indiana	1	57	58
Michigan	47	71	118
Kentucky	3	51	54
Illinois	1	11	12
Kansas	22	108	130
Oklahoma	78	276	354
East Texas	47	118	165
West Texas	19	99	118
Texas Panhandle	12	37	49
North Cent. Texas	25	113	138
S. W. Texas	26	136	162
Texas Gulf	11	112	123
Louisiana Gulf	7	34	41
N. Louisiana	68	70	139
Arkansas	11	32	43
Mississippi	0	14	20
Alabama	0	4	4
East Texas Gas	1	14	15
Montana	4	34	38
Utah	1	15	16
Wyoming	12	57	69
Colorado	5	56	61
New Mexico	5	46	51
Total May	490	1,772	2,262
Total April	464	1,626	2,290
Difference	26	54	28

Note—In the following report the Section, Township and Range are given first; then the farm, the owner, the serial number of the well and the initial production of the well. In lines where the Section, Township and Range are missing the wells are located in the Sections, Townships and Ranges which appear next above in the report.

Oklahoma Fields

Summary of Wells Completed

County—	Comp.	Prod.	Dry	Gas
Atoka	3	0	2	0
Carter	4	2,712	1	0
Caddo	2	75	1	0
Creek	19	355	8	2
Haskell	2	0	2	0
Hughes	7	1,479	1	2
Jefferson	3	110	0	0
Lincoln	1	0	1	0
Marshall	2	15	1	0
Muskogee	1	0	0	1
Oklahoma	4	12,934	0	0
Okmulgee	8	40	4	0
Osage	5	122	1	0
Okfuskee	2	160	0	0
Payne	2	0	2	0
Pontotoc	4	250	2	1
Pottawatomie	2	2,397	0	0
Seminole	4	1,240	1	0
Stephens	7	180	1	0
Tulsa	5	30	3	1
Wagoner	11	199	5	1
Total May	98	22,339	36	8
Total April	85	42,069	31	4
Difference	13	19,730	5	4

Summary of Rigs and Wells Drilling

County—	Rigs	Drlg.	Ttl.
Atoka	2	7	9
Beckham	0	1	1
Caddo	1	7	8
Cleveland	1	0	1
Coal	1	3	4
Creek	6	30	36
Carter	2	5	7
Comanche	0	4	4
Cotton	1	0	1
Garfield	0	1	1
Garvin	1	1	2
Grant	1	0	1
Grady	0	1	1
Hughes	7	26	33
Jefferson	0	7	7
Kiowa	0	2	2
Kay	0	2	2
Lincoln	1	3	4
Logan	1	5	6
Marshall	0	5	5
Murray	1	0	1
Muskogee	0	4	4
Noble	1	10	11
Oklahoma	18	16	34
Okmulgee	3	23	26
Osage	6	25	31
Okfuskee	0	4	4
Payne	0	6	6
Pottawatomie	8	22	30
Pittsburg	2	3	5
Pontotoc	5	14	19
Seminole	3	12	15
Stephens	2	12	14
Tillman	0	2	2
Tulsa	3	11	14
Washita	0	1	1
Wagoner	2	3	5
Total May	79	276	355
Total April	106	262	368
Difference	27	14	13

WELLS COMPLETED

ATOKA COUNTY

3-1s-14 Skelly-Spring Oil Co. 1 ..... dry
3-1s-14 McQuillan 1 ..... dry
9-1s-14 Croxton-Norton 4 ..... ¾

Wells completed 2
Dry 2
Production ..... ¾

CARTER COUNTY

25-1s-2w Trevelyn Oil Co. 1 1470
31-1s-2w W. Franklin Pet. Corp. 1 ..... dry
25-1s-3w Daphfine Oil Co. 3 646
25-1s-3w Samedan Oil Co. 2 596

Wells completed 4
Production 2712
Dry 1

CADDO COUNTY

6- 5- 9w Mid-Kansas Oil & Gas Co. 6. 75
8- 6-13w Abernathy & Brown 2 ..... dry

Wells completed 2
Production 75
Dry 1

CREEK COUNTY

22-18- 8 Buckles 3 15
26-18- 8 L. B. Jackson 1 ..... dry
26-18- 8 F. L. Marrs 1 ..... dry
3-19- 9 Leathercock & Bankston 1 ..... 2o
3-19- 9 A. W. Swift 1 ..... gas
32-19- 9 Popis et al 1 35
32-19- 9 Fortner et al 1 ..... gas
3-18- 8 Robinson et al 2 35
17-17-10 Curtis Oil Co. 1 ..... dry
36-17-11 Wise and Archer 1 ..... dry
4-16- 7 Magnolia Pet. Co. 7 ..... dry
30-19- 9 Doke and Hughes 2 10
35-18- 8 Galbraith and Byers 1 ..... dry
34-19- 8 Big Four Pet. Co. 1 ..... 2o
18-19- 9 A. A. Bailey 2 25
28-18- 8 J. E. Crosble 4 ..... dry
27-18- 8 Gled Oil Co. et al 1 175
23-18-11 Slater et al 11 5
18-17-10 Curtis Oil Co. 1 ..... dry

Wells completed 19
Production 350
Dry 8
Gas 2
Gas production 3,500,000

HASKELL COUNTY

14- 9-19 Aults 1 ..... dry
14- 9-19 Aults 1 ..... dry

Wells completed 2
Dry 2

HUGHES COUNTY

29-7-8 Manahan et al 1 ..... gas
3-8-8 English et al 1 ..... dry
15-7-8 Kenneuy and Horner 1 49
9-7-8 Mid-Continent Pet. Corp. 2 490
16-7-8 Murrah and Bohanan 2 100
10-7-8 Rudman et al 1 840
15-7-8 Sunray Oil Co. 1 ..... gas

Wells completed 7
Production 1479
Dry 1
Gas 2
Gas production 30,000,000

JEFFERSON COUNTY

3-7s-5w Farlyn Oil Co. 9 60
34-6s-5w O. B. Beck et al 2 25
34-6s-5w O. B. Beck et al 1 25

Wells completed 3
Production 110

LINCOLN COUNTY

3-12-3 Sovereign Oil Co. 1 ..... dry

Wells completed 1
Dry 1

MARSHALL COUNTY

31-7s-6 Kingston Oil & Gas Co. 1 15
24-5s-5 Thompson et al ..... dry

Wells completed 2
Production 15
Dry 1

MUSKOGEE COUNTY

7-15-17 Hendricks and Kohn 2 ..... gas

Wells completed 1
Gas 1
Gas production 1,750,000

OKLAHOMA COUNTY

26-11-3w Phillips Pet. Co. 2, 4 hrs. 4040
22-11-3w Wofford Drlg. Co. 1, 4 hrs. 2892
22-11-3w Harrell-Davis 1, 4 hrs. 4405
22-11-3w Phillips Pet. Co. 2, 4 hrs. 1597

Wells completed 4
Production 12,934

OKFUSKEE COUNTY

7-12-11 Keaton & Gold 2 120
25-10-11 Shock et al 2 40

Wells completed 2
Production 160

OSAGE COUNTY

22-25-6 Sinclair Prairie Oil Co. 1 25
27-24-7 Lewis Prod. Co. 1 55
32-26-6 Magnolia Pet. Co. 1 25
36-24-7 Bay Oil Co. 1 17
19-24-8 I.T.I.O. Co. 1 ..... dry

Wells completed 5
Production 122
Dry 1

OKMULGEE COUNTY

15-13-14 F. C. Cusack 4 6
36-15-14 English & Henderson 1 ..... dry
15-14-14 J. E. Wallace 1 6
14-13-13 L. Pemrod et al 1 ..... dry
6-14-12 W. B. Pine 1 25
14-14-14 F. D. Misener 6 3
26-12-12 Bingham Bros. 1 ..... dry
32-13-13 H. E. West 9 ..... dry

Wells completed 8
Production 40
Dry 4

PAYNE COUNTY

28-21-8 Moore et al 1 ..... dry
11-20-8 Shidell and Johnson 1 ..... dry

Wells completed 2
Dry 2

PONTOTOC COUNTY

11-2-6 Edna Marie Oil Co. 1 ..... dry
7-3-7 Boetcher Oil & Gas Co. 1 ..... dry
29-5-5 Ligon et al 1 250
14-4-6 Blackwell Oil & Gas Co. 1 ..... gas

Wells completed 4
Production 250
Dry 2
Gas 1
Gas production 3,000,000

POTTAWATOMIE COUNTY

26-6-4 Amerada Pet. Corp. 1 1972
5-6-5 Watchorn Oil & Gas Co. 1 425

Wells completed 2
Production 2397

SEMINOLE COUNTY

18-7-8 Winona Oil Co. 1 ..... dry
19-7-8 Empire Oil & Ref. Co. 4 402
30-7-8 Empire Oil & Ref. Co. 1, 12 hrs. 371
2-8-5 Sovereign Oil Co. 1 467

Wells completed 4
Production 1240
Dry 1

STEPHENS COUNTY

16-1s-5w L. Sykes 4 ..... dry
22-2s-7w Pace et al 3 10
2-2s-8w Pace et al 4 10
2-2s-8w Gilbert et al 2 35
8-3s-5w Farlyn Oil Co. 8 90
16-1s-5w L. Sykes 4 15
22-2s-7w Pace 7 20

Wells completed 7
Production 180
Dry 1

TULSA COUNTY

24-16-13 A. D. McDonald 2 ..... dry
15-16-12 A. B. Ice 1 ..... dry
5-17-14 H. W. Bowden 1 ..... dry
27-17-13 Cummings 4 80
26-17-14 Bryan Pet. Co. 1 ..... gas

Wells completed 5
Production 80
Dry 3
Gas 1
Gas production 2,000,000

WAGONER COUNTY

13-17-15 Sewell et al 2 ..... dry
26-18-15 Sheridan Oil Co. 2 50
15-18-15 Diller et al 1 ..... dry
1-17-15 B. G. Goble 1 ..... dry
21-17-16 O. K. Detrick 1 30
17-16-15 Aggis Drlg. Co. 1 ..... dry
22-18-15 Dillard et al 1 ..... dry
24-18-15 Helvis and Stout 1 50
24-18-15 Parks et al 1 ..... gas
26-18-15 J. E. Martins 4 10
26-18-15 Stansbury 2 50

Wells completed 11
Production 190
Dry 5
Gas 1
Gas production 250,000

Kansas Fields

Summary of Rigs and Wells Drilling

County—	Rigs	Dlg.	Ttls.
Barton	1	3	4
Butler	1	0	1
Cowley	0	2	2
Elk	1	2	3
Ellsworth	0	4	4
Graham	0	1	1
Greenwood	1	6	7
Harvey	6	24	30
Kingman	0	1	1
Lyon	0	1	1
McPherson	8	35	43
Pratt	0	1	1
Rice	1	11	12
Russell	0	2	2
Reno	2	7	9
Rooks	0	1	1
Saline	0	1	1
Sedgwick	0	1	1
Sumner	1	2	4
Stafford	0	1	1
Trego	0	1	1
Total May	22	108	130
Total April	28	116	144
Difference	6	8	14

Summary of Wells Completed

County—	Comp.	Prod.	Dry	Gas
Barton	2	612	0	0
Cowley	2	30	1	0
Elk	3	0	3	0
Greenwood	4	13	2	0
Harvey	10	8,446	0	0
McPherson	14	5,992	5	1
Reno	2	115	0	1
Rice	2	0	2	0
Russell	1	165	0	0
Sedgwick	3	135	2	0
Stafford	2	1,373	0	0
Woodson	3	5	2	0
Total May	30	16,889	17	2
Total April	49	19,831	17	2
Difference	19	1,932	0	0

WELLS COMPLETED

BARTON COUNTY

4-20-11w Noble Drlg. Co. 1 12
12-17-11w Slick, Pryor and Lockhart 1. 600

Wells completed 2
Production 612

COWLEY COUNTY

11-32- 4 McNabb 1 ..... dry
32-21- 8 Roth and Faurot 1 30

Wells completed 2
Production 30
Dry 1

ELK COUNTY

36-31-10 J. Hays 1 ..... dry
20-29-12 Davidson-Tracy 1 ..... dry
26-31-10 Central States O. & G. Co. 1. dry

Wells completed 3
Dry 3

GREENWOOD COUNTY

4-24-11 Ward McGinnis 1 ..... dry
25-24-12 Derby Oil Co. 4 10
15-23-13 Oko O. Co. 8 3
33-22-12 Knight et al 1 ..... dry

Wells completed 4
Production 13
Dry 3

HARVEY COUNTY

5-22-3w Sinclair Prairie O. Co. 1 644
8-22-3w Shell Pet. Corp. 1 540
20-22-3w Phillips Pet. Co. 245
19-22-3w Study Frost et al 3 370
8-22-3w The Texas Company 1 60
17-22-3w Shell Pet. Corp. 1 1006
17-22-3w Shell Pet. Corp. 2 1902
17-22-3w Skelly Oil Co. 1 1740
19-22-3w Sinclair Prairie Oil Co. 1..... 720
19-22-3w Skelly Oil Co. 2..... 1219

Wells completed 10
Production 8446

McPHERSON COUNTY

7-19-2w Whan et al 1 50
9-19-2w General Pet. Co. 1 ..... dry
36-19-2w Lario Oil & Gas Co. 2 452
21-19-1w Reed et al 1 ..... dry
27-21-3w Lario Oil & Gas Co. 1 ..... dry
28-21-3w Gled Oil Co. et al 1 ..... dry
28-19-2w Helmerick & Payne 1 ..... gas
24-19-2w Gypsy Oil Co. 2 502
24-19-2w Lario Oil & Gas Co. 3 454
16-21-3w Spencer et al 1 150
16-21-3w Mylius et al 2 1415
7-20-1w Washoma Oil Co. 1 250
24-19-2w Lario Oil & Gas Co. 3 945
25-19-2w Rice Oil Corp. 2 671
20-19-1w Darby Pet. Co. 4 800
24-19-1w Darby Pet. Co. 1 ..... dry

Wells completed 16
Production 5992
Dry 5
Gas 1
Gas production 6,000,000

RENO COUNTY

20-23-4w Olson et al 2 ..... gas
35-23-4w Olson Oil Co. 1 115

Wells completed 2
Production 115
Gas 1
Gas production 25,000,000

RICE COUNTY

21-19-9w Lebow et al 1 ..... dry
31-19-9w Douglass et al 1 ..... dry

Wells completed 2
Dry 2

RUSSELL COUNTY

16-11-15w Ligget et al 1 165

Wells completed 1
Production 165

SEDGWICK COUNTY

30-25-2 Carter Oil Co. 1 ..... dry
15-25-1 Keith et al 1 ..... dry
11-26-2 Aylward et al 1 135

Wells completed 3
Production 135
Dry 2

STAFFORD COUNTY

27-21-13w Atlantic O. P. Co. 1, 18 hrs. 176
1-23-12w Stanolind Oil & Gas Co. 2..1197

Wells completed 2
Production 1273

WOODSON COUNTY

5-25-15 Spencer et al 1 ..... dry
17-24-14 Nye and Kilby 1 ..... dry
24-25-13 Sheedy et al 1 5

Wells completed 3
Production 5
Dry 2

Panhandle Fields

Summary of Wells Completed

County—	Comp.	Prod.	Abd.	Gas
Carson	2	0	0	2
Collingsworth	1	0	1	0
Gray	7	1,742	0	0
Hutchinson	3	155	0	0
Moore	1	0	0	1
Wheeler	3	10	0	2
Total May	17	1,907	1	5
Total April	10	2,527	2	2
Difference	2	620	1	3

Summary of Rigs and Wells Drilling

County—	Rigs	S.D.	Drlg.	Ttl.
Carson	1	0	1	2
Childress	1	2	0	3
Gray	5	7	11	23
Hutchinson	4	3	2	9
Hemphill	0	1	0	1
Moore	0	2	1	3
Oldham	0	1	0	1
Roberts	0	1	0	1
Wheeler	1	4	1	6
Total May	12	21	16	49
Total April	15	16	19	50
Difference	9	5	3	1

WELLS COMPLETED

CARSON COUNTY

Texoma Nat. Gas Co. No. 4-S Schaffer gas
Texoma Nat. Gas Co. No. 5-S Schaeffer gas

Wells completed 2
Gas 2

COLLINGSWORTH COUNTY

Kates No. 1 Bell abd

Wells completed 1
Abandoned 1

GRAY COUNTY

Skelly Oil Co. No. 1 Thut 6
Phillips Pet. Co. No. 4 Palmer (old well recompleted) 290
The Texas Co. No. 2 Cook Faulkner 250
Parton and Holt No. 4 Morse 7
Sun Oil Co. No. 1 Combs Worley 854
The Texas Co. No. 8 Cook Faulkner 200
Gulf Prod. Co. No. 7-A Bowers (old well recompleted) 135

Wells completed 7
Initial production 1742

HUTCHINSON COUNTY

Harry Stekoel No. 2 G. A. Whittenburg 40
Texilmanix Oil Co. No. 1 Haille 40
Stekoel No. 1 Amerada 75

Wells completed 3
Initial production 155

MOORE COUNTY

Canadian River Gas Co. No. 2-A Perkins gas

Wells completed 1
Gas 1

WHEELER COUNTY

R. R. Osborne No. 1-A George Admire gas
R. R. Osborne et al's No. 2 Glass and Admire 10
R. M. Rhodes No. 1 Noel 10

Wells completed 3
Initial production 10
Gas 2

West Texas Fields

Summary of Wells Completed

County	Comp.	Prod.	Abd.	Gas
Crockett	2	0	2	0
Ector	1	127	0	0
Howard	2	130	0	0
Ward	4	334	1	0
Pecos	1	50	0	0
Winkler	1	127	0	0
Total May	11	768	3	0
Total April	34	6,891	9	0
Difference	23	6,123	6	0

Summary of Rigs and Wells Drilling

County	Rigs	S.D.	Drlg.	Ttl.
Brewster	0	1	0	1
Concho	0	1	0	1
Crane	1	0	0	1
Crockett	0	1	0	1
Ector	2	2	3	7
Fisher	1	2	0	3
Garza	0	1	0	1
Glasscock	0	3	0	3
Howard	2	2	10	14
Irion	0	2	0	2
Jones	0	4	4	8
Loving	4	1	0	5
Pecos	1	4	7	12
Presidio	0	1	0	1
Reagan	1	1	6	8
Reeves	1	1	1	3
Runnels	0	2	1	3
Schleicher	0	1	1	2
Scurry	0	5	0	5
Terrell	0	2	0	2
Ward	4	13	11	28
Winkler	2	3	2	7
Total May	19	53	46	118
Total April	23	38	55	116
Difference	4	15	9	2

WELLS COMPLETED

CROCKETT COUNTY

Stanolind et al's No. 1 Todd abd
Superior Oil Co. No. 1 Massie abd

Wells completed 2
Abandoned 2

ECTOR COUNTY

Stanolind Oil & Gas Co. No. 1 Cowden 127

Wells completed 1
Initial production 127

HOWARD COUNTY

Sinclair Prairie Oil Co. No. 4 Dodge 65
Plymouth Oil Co. No. 3 Kloh et al 65

Wells completed 2
Initial production 130

WARD COUNTY

Atlantic Oil and Production Co. No. 1 University abd
Gulf Production Co. No. 6 Hutchings 194
Thomas No. 2 Bennett 90
Thompson No. 1 Johnson 50

Wells completed 4
Initial production 334
Abandoned 1

PECOS COUNTY

Black, Coran and McGee No. 2 Pecos Valley 50

Wells completed 1
Initial production 50

WINKLER COUNTY

Richardson et al No. 1 Scarborough 127

Wells completed 1
Initial production 127

East Texas Fields

Summary of Wells Completed

County—	Comp.	Prod.	Abd.	Gas
Angelina	2	0	2	9
Bowie	1	0	1	0
Franklin	1	0	1	0
Freestone	1	0	1	0
Gregg	50	4,089	1	0
Henderson	2	0	2	0
Rusk	46	3,217	2	0
Smith	3	145	1	0
Upshur	10	385	4	0
Van Zandt	6	55	4	0
Titus	2	0	2	0
Wood	1	0	1	0
Total May	125	7,891	22	0
Total April	104	7,217	9	0
Difference	21	674	13	0

Rigs and Wells Drilling

County—	Rigs	S.D.	Drlg.	Ttl.
Anderson	0	1	0	1
Angelina	0	3	0	3
Bowie	0	1	0	1
Cherokee	0	4	1	5
Delta	0	1	0	1
Ellis	0	5	0	5
Fannin	0	0	1	1
Freestone	0	0	1	1
Gregg	10	6	19	35
Henderson	0	1	0	1
Hill	1	0	0	1
Hopkins	3	2	0	5
Hunt	0	0	1	1
Kaufman	0	0	1	1
Leon	1	0	0	1
Limestone	0	0	3	3
Morris	2	2	1	5
Navarro	0	1	0	1
Red River	1	2	0	3
Rusk	21	13	23	57
Smith	2	2	2	6
Titus	0	1	0	1
Upshur	4	3	2	9
Van Zandt	2	5	10	17
Total May	47	53	65	165
Total April	46	59	64	169
Difference	1	6	1	4

WELLS COMPLETED

ANGELINA COUNTY

Smith and LaRue et al's No. 1 Colmorgan abd
American Liberty Oil Co.'s No. 1 Colmorgan abd

Wells completed 2
Abandoned 2

BOWIE COUNTY

Langford et al's No. 1 Whybark abd

Wells completed 1
Abandoned 1

FRANKLIN COUNTY

Whiteoak Oil Co.'s No. 1 C. C. Clanton. abd

Wells completed 1
Abandoned 1

FREESTONE COUNTY

Sun Oil Co.'s No. 1 M. White abd

Wells completed 1
Abandoned 1

GREGG COUNTY

Gulf Prod. Co.'s No. 35 J. C. Judge, open tubing 119
Humble Oil & Ref. Co.'s No. 15 T. M. Armstrong, ¾-in. tubing 73
Gulf Prod. Co.'s No. 17 W. Holt, ¾-in. tubing 75
Magnolia Pet. Co.'s No. 4 L. Andrews, open tubing 170
J. C. Means, Jr.'s No. 5 W. P. Luce, open tubing 105
Sowell et al's No. 3 Luce, open tubing 90
Atlantic Oil & Prod. Co.'s No. 32 Hayes, open tubing 85
Atlantic Oil & Prod. Co.'s No. 33 Hayes, tapered tubing 24
Cal-Pet Corp.'s No. 4 B. Jones, open tubing 105
Gulf Prod. Co.'s No. 13 S. C. Fishburn, open tubing 100
Humble Oil & Ref. Co.'s No. 11 T. M. Armstrong, open tubing, ¼ hr. 20
Magnolia Pet. Co.'s No. 4 V. L. Goolsby, open tubing 188
Gulf Prod. Co.'s No. 12 Muckelroy, open tubing 62
Harry Lewis' No. 1 King, ¾-in. tubing choke 75
McWhorter's No. 1 Nellie Jobe, ¾-in. tubing choke 80
Magnolia Pet. Co.'s No. 13 J. Radford, open tubing 126
Mid-Field Oil Co.'s No. 2 Lulu Martin, ¾-in. tubing choke 50
Texas Co.'s No. 14 M. T. Cole, open tubing 97
J. E. Webb's No. 1 Ed Mitchell, ¾-in. tubing choke 75
Barnsdall Oil Co.'s No. 10 Bingham, 2-in. tubing, ¼ hr. 30
Bonds & Dillard's No. 5 D. Meyers, open tubing 165
Gulf Prod. Co.'s No. 36 J. C. Judge, open tubing 100
Magnolia Pet. Co.'s No. 7 I. Zeigler, open tubing 110
Mid-Continent Drilling Co.'s No. 1 Tubbs abd
Yount Lee Oil Co.'s No. 8-B J. C. and R. S. McKinley, 11/16-in. tubing 55
Yount Lee Oil Co.'s No. 2-B E. M. Whatley, 11/16-in. tubing 40
Delta Drilling Co.'s No. 3 Hughey-Ross, 1-in. tubing choke 60
Canica Oil Co.'s No. 1 M. Jackson, open tubing 135
Gulf Prod. Co.'s No. 10 R. H. Still, open tubing 42
Invincible Oil Co.'s No. 8 Weiss, open tubing 165
Sun Oil Co.'s No. 23 M. T. Cole, open tubing 73
Sun Oil Co.'s No. 5 A. G. Morton, open tubing 45
Atlantic Oil & Prod. Co.'s No. 4-B A. Tooke, open tubing 64
Jim Bond's No. 1 C. Fisher, open tubing 80
Cal-Pet Oil Co.'s No. 5 B. Jones, open tubing 105
Gulf Prod. Co.'s No. 12 S. C. Fishburn, open tubing 99
W. R. Jones' No. 3 Doby, open tubing 90
Magnolia Pet. Co.'s No. 16 Everett, 1¼-in. tubing choke, ¼ hr. 50
St. Jude's No. 1 Sanpieri, open tubing 95
George W. Foster's No. 1-E Carr, 1-in. tubing choke 75
Gulf Prod. Co.'s No. 5 S. G. Andrews, open tubing 80
Atlantic and Sun Oil Co.'s No. 34 Hayes, open tubing 82
Gulf Prod. Co.'s No. 23 M. O. Sheppard, open tubing 90
Humble Oil & Ref. Co.'s No. 5 H. Castleberry, 2-in. tubing 15
Atlantic Oil & Prod. Co.'s No. 4 Griffin, open tubing 75
Crosby et al's No. 1 I.&G.N. R.R., open tubing, 10 min. 10
Gulf Prod. Co.'s No. 15 H. C. Alexander, open tubing 72
Gulf Prod. Co.'s No. 50 Hilburn, open tubing 90
C. H. Lyons' No. 1 W. Smith, open tubing 60
Texas Co.'s No. 18 M. T. Cole, open tubing 86

Wells completed 50
Initial production 4089
Abandoned 1

HENDERSON COUNTY

McElreath & Suggett's No. 1 T. E. Scott abd
H. H. Meyers' No. 1 M. E. Olson abd

Wells completed 2
Abandoned 2

RUSK COUNTY

Gulf Prod. Co.'s No. 4 W. A. Maxwell, open tubing 60
Humble Oil & Ref. Co.'s No. 2-A S. A. Plowman, open tubing 78
Gulf Prod. Co.'s No. 18-C C. E. Christian, open tubing 90
Humble Oil & Ref. Co.'s No. 5-B W. P. Moore, ¾-in. tubing 86
Sinclair Prairie Oil Co.'s No. 5-B Major Kennedy, open tubing 80
Chicago Oil Co.'s No. 2 C. O. Christian, ¾-in. tubing choke 120
Humble Oil & Ref. Co.'s No. 16 J. N. Peterson, ¾-in. tubing 75
Humble Oil & Ref. Co.'s No. 7-C H. Sexton, ¾-in. tubing 105
Westheimer & Daube's No. 4 Brightwell, ¾-in. tubing choke, ½ hr. 39
Humble Oil & Ref. Co.'s No. 1 Maggie Watkins, open tubing 15
Hunt Prod. Co.'s No. 3-A Joe Lee, open tubing, ½ hr. 75
Mid-Kansas Oil & Gas Co.'s No. 5 Kangerga Bros., 2-in. lead 112
Devonian Oil Co.'s No. 16 Motley, open tubing 87
Gulf Prod. Co.'s No. 17-C C. E. Christian, open tubing 79
Humble Oil & Ref. Co.'s No. 17-A S. S. Laird, ¾-in. tubing 92
Gulf Prod. Co.'s No. 23 G. G. Turner, open tubing 55
Humble Oil & Ref. Co.'s No. 5 J. J. Pitner, ¾-in. tubing 85
Humble Oil & Ref. Co.'s No. 22-A S. A. Plowman, open tubing 133
Bogg et al's No. 1 J. Border abd
Darby Pet. Co.'s No. 16-B C. O. Christian, ¾-in. tubing 75
Gulf Prod. Co.'s No. 16-C C. E. Christian, open tubing 108
J. I. Roberts and Murphy's No. 1 W. P. Brightwell, 1-in. tubing 75
Robert Bros.' No. 1 W. P. Brightwell, ¾-in. tubing choke 65
Combined Oil Interest's No. 19 G. W. Eaton, open tubing 45
Gulf Prod. Co.'s No. 4-A Walter, open tubing 20
H. L. Hunt Prod. Co.'s No. 8-A H. C. Maxwell, open tubing 125
Texas Co.'s No. 1 Stubblefield, 1-in. tubing, 2 hrs. 22
Barnsdall Oil Co.'s No. 3 T. H. Gill, ¾-in. tubing 70
Devonian Oil Co.'s No. 17 R. A. Motley, open tubing 76
Humble Oil & Ref. Co.'s No. 71 L. D. Crim, ¾-in. tubing 90
Humble Oil & Ref. Co.'s No. 18 S. S. Laird, ¾-in. tubing 56
Humble Oil & Ref. Co.'s No. 6-C H. Sexton, ¾-in. tubing 110
Humble Oil & Ref. Co.'s No. 8-C H. Sexton, ¾-in. tubing 80
Humble Oil & Ref. Co.'s No. 9 W. B. Key, ¾-in. tubing 75
Humble Oil & Ref. Co.'s No. 4-B J. E. Sexton, ¾-in. tubing 75
Humble Oil & Ref. Co.'s No. 16-A R. E. L. Silvey, ¾-in. tubing choke 80
Humble Oil & Ref. Co.'s No. 17-A R. E. L. Silvey, ¾-in. tubing choke 75
Humble Oil & Ref. Co.'s No. 12 A. L. Walker, ¾-in. tubing 75
Humble Oil & Ref. Co.'s No. 8-B H. White, open tubing 40
Mid-Kansas Oil & Gas Co.'s No. 39 W. T. Grissom, 2-in. lead 109
Mid-Kansas Oil & Gas Co.'s No. 6 J. M. Price, 2-in. lead 49
Parks et al's No. 1 Frederick, per hour pumping 12
Stanolind and Pure Oil Co.'s No. 2 W. H. Siler, ¾-in. tubing, 50 min. 40
Sun Oil Co.'s No. 5 Alf Lee, open tubing 78
Ward Oil Co.'s No. 16 E. Thrash, open tubing 75
T. C. Castle et al's No. 1 Gary abd

Wells completed 46
Initial production 3217
Abandoned 2

SMITH COUNTY

B. G. Byers' No. 1 L. Jackson, open tubing 125
Sinclair Prairie Oil Co.'s No. 6 Patterson temp. abd
Sun Oil Co.'s No. 4 Hodnett & Melton 16

Wells completed 3
Initial production 141
Abandoned 1

UPSHUR COUNTY

Wadley-Evans-Lyons et al's No. 2 Shuttlesworth, 2½-in. tubing, 20 hrs. 75
Maddox Dev. Co.'s No. 1 D. A. Fleet abd
F. A. Fuller et al's No. 1 Shuttlesworth abd
Pat Hudson et al's No. 1 D. F. Smith abd
Orr & Newsom's No. 1 D. F. Smith abd
B. F. Phillips' No. 1 Carrie Brooks, open tubing 60
Rodgers Bros.' No. 4 E. H. Brawley, open tubing 75
Rodgers Bros.' No. 5 E. H. Brawley, ¾-in. tubing 56
Conservative Oil Co.'s No. 3 Eva O'Byrne, 1-in. tubing 45
Waggoner & McConnell's No. 4 Williams, open tubing 75

Wells completed 10
Initial production 385
Abandoned 4

VAN ZANDT COUNTY

J. C. Peten's No. 1 W. J. Brannon, pumping, per day 20
Pure Oil Co.'s No. 2 Butler 35
Roy Stumpff's No. 1 Higgs abd
Orbit Oil Corp.'s No. 1 Moore Grocery Co. abd
Barton et al's No. 1 C. L. Hubbard abd
A. G. Rowans' No. 1 W. E. Price abd

Wells completed 6
Initial production 55
Abandoned 4

TITUS COUNTY

R. L. Peveto and Fred Prince's No. 1 W. H. Crawford abd
Rotundee et al's No. 1 First State Bank abd

Wells completed 2
Abandoned 2

WOOD COUNTY

Hull and Short's No. 1 T. H. Patterson abd

Wells completed 1
Abandoned 1

Southwest Texas Fields

Summary of Field Operations

County—	Comp.	Prod.	Dry Gas	Rgs.	Dlg.	Ttl.
Hilbig	2	1,200	0	0	1	1
Sarnosa	2	580	0	3	0	3
N.Gov.Wells	6	590	1	1	2	3
Jacob	1	50	0	0	1	1
Saxet	1	300	0	0	0	0
Moca	2	0	1	0	0	0
Laurel	7	793	2	0	3	5
Los Olmos	3	0	3	0	0	3
Escobas	2	85	0	0	1	1
Miscel.	33	193	31	1	17	117
Total May	59	3,891	38	3	26	136
Total April	85	10,591	49	7	20	146
Difference	26	6,700	11	4	6	10

WELLS COMPLETED

HILBIG POOL—BASTROP COUNTY

Hassell, Humble Oil & Ref. Co. 2 100
Wilhelm, Humble Oil & Ref. Co. 2 1200

SARNOSA POOL—DUVAL COUNTY

Weil, Sarnosa Oil Corp. 6 480
Ruiz, Magnolia Pet. Corp. 3 100

N. GOV. WELLS POOL—DUVAL COUNTY

Hahl, Geo. Parr et al 1 abd
Hahl, Navarro Oil Co. 6 482
Lundall, Wilkins Seacord 2 gas
Wendt, The Texas Company 7 100
Wederkehr, Sun Oil Co. 1 10
Hahl-Burch, Magnolia Pet. Co. 1 100

JACOB POOL—McMULLEN COUNTY

Jacob, Jacob, Buzzini & Pickett 11 50

SAXET POOL—NUECES COUNTY

Meredith, Shasta Oil Co. 1 300

MOCA POOL—WEBB COUNTY

Duval Co. Ranch Co. Moca Oil Co. 4 gas
Duval Co. Ranch Co. Whisenant & Trenchard A-1 abd

LAUREL POOL—WEBB COUNTY

Garcia-Villareal, Dyck Oil Co. 4 150
Garcia-Villareal, Magnolia Pet. Co. 5 35
Vela, Sal-Mar Oil Corp. 1 abd
Garcia-Villareal, O. W. Killam 2 abd
Laurel, South Texas Oil Co. 16 8
Garcia-Villareal, Montex Oil Co. 1 500
Garcia-Villareal, Wise & Jackson 2 100

LOS OLMOS POOL—STARR COUNTY

Seabury, Goodwin & Yantis 2 abd
Doyno, Holloway & Tilton 1 abd
Kelsey Bass, Los Olmos Oil & Gas Co. 52 abd

ESCOBAS POOL—ZAPATA COUNTY

Bustamente, R. W. Roscoe 3 25
Measles, The Texas Company 36 60

Wells completed 26
Production 3,795
Tests abandoned 7
Gas production 65,000,000

MISCELLANEOUS COUNTIES

ATASCOSA COUNTY

Schroeder, Jacob, Buzzini & Pickett 1 abd

BASTROP COUNTY

Fritag, Properties Trading Co. 1 abd
Rivers, Champion 1 abd
Mikulec, Texas & Gant 1 abd

BEE COUNTY
Hall, Humble Oil & Ref. Co. 1 ..... abd
Plummer, John O'Neil 1 ..... abd

BEXAR COUNTY
Beeck, Rollin V. Hill 1 ..... abd

CALDWELL COUNTY
Jeffrey, E. D. Herne, 1 ..... abd

DUVAL COUNTY
Olivares, Smith & Hunter 1 ..... abd
Petera, Shasta Oil Co. 2 ..... abd

GONZALES COUNTY
James, Antibus et al 1 ..... abd

GUADALUPE COUNTY
Ogletree, B. E. Brock 1 ..... abd
Woehler, Sal-Mar Oil Co. 1 ..... abd
Schuenemann, Luling Oil & Gas Co. 1 ..... abd
Williams, Magnolia Pet. Co. 1 ..... abd

JIM HOGG COUNTY
Heirs, Cole Pet. Co. 1 ..... abd

KARNES COUNTY
Porter, Magnolia Pet. Co. 1 193

LIVE OAK COUNTY
Withers, Jacob, Buzzini & Pickett 1 .. abd

McMULLEN COUNTY
Hagist, Jaqua & Crow 1 ..... abd

STARR COUNTY
Fernandes Brothers A. C. McGahhey 1 .. abd
Starr Co. Cattle Co. Jeffries & Lambeth 1 ..... abd
Kelsey Bass, Goodwin & Yantis 2 ..... abd
Seabury et al, Dr. R. McCormick 1 .. abd
Ida Davis, Ed Claggett-Myers 2 ..... abd

TRAVIS COUNTY
Brady, Fred Hughes 1 ..... abd
Brady, Watson et al 1 ..... abd

WEBB COUNTY
Gates, Seagraves & Salsbury 1 ..... abd
Villareal, Cole Pet. Co. 1 ..... abd
Withers, P. G. House 1 ..... abd
Gates, Earl Calloway et al 1 ..... abd

WILLIAMSON COUNTY
Hamilton, McNeill & Matthews 1 ..... abd

ZAPATA COUNTY
Garcia, Stevens & Brown 1 ..... abd
Bruni, O. W. Killam 5 ..... gas

Wells completed	33
Production	193
Tests Abandoned	31
Gas production	30,000,000

North Central Texas Fields

Summary of Wells Completed

County	Comp.	Prod.	Abd.	Gas
Archer	11	178	6	0
Brown	2	1	1	0
Callahan	7	2	2	4
Clay	3	48	2	0
Coleman	3	0	2	0
Denton	3	0	2	0
Eastland	4	10	2	0
Jack	6	20	5	0
Palo Pinto	3	2	1	0
Shackelford	1	0	1	0
Stephens	1	0	1	0
Taylor	1	0	1	0
Throckmorton	5	0	5	0
Wichita	10	45	3	0
Wilbarger	3	15	2	0
Young	17	425	11	0
Total May	78	786	52	4
Total April	91	4,354	61	2
Difference	13	3,568	9	2

Summary of Rigs and Wells Drilling

County	Rigs	S.D.	Drlg.	Ttl.
Archer	5	13	10	28
Brown	2	2	3	7
Callahan	1	4	0	5
Clay	0	2	0	2
Coleman	4	2	1	7
Cooke	0	2	1	3
Eastland	2	1	0	3
Erath	0	2	0	2
Foard	0	0	1	1
Grayson	0	2	1	3
Jack	1	3	1	5
Johnson	0	2	0	2
Montague	0	2	0	2
Palo Pinto	1	7	3	11
Parker	0	3	0	3
Shackelford	1	3	1	5
Stephens	0	2	0	2
Tarrant	1	1	0	2
Throckmorton	1	2	1	4
Wichita	3	1	3	7
Wilbarger	1	0	4	5
Wise	0	1	1	2
Young	2	10	11	23
Total May	25	67	46	138
Total April	30	53	63	146
Difference	5	14	17	8

WELLS COMPLETED

ARCHER COUNTY
Rathke Oil Co. No. 1 Gulf ..... abd
Seaberry No. 1 J. M. Hughes 3
Gross and Reed No. 1 Andrews ..... abd
W. B. Hamilton No. 1 Graham ..... abd
Kerbow et al No. 1 Stell ..... abd
W. B. Omohundro No. 5 Turbeville .. 140
Fain and McGaha Oil Corp. No. 4 E. R. Bain 15
Charles L. Abercrombie No. 2 Abercrombie 11
G. G. Browning No. 1 Andrews ..... abd
Magee and Stipe No. 1 Portwood ..... abd
R. C. Parker No. 1 Breyens 9

Wells completed	11
Initial production	178
Abandoned	6

BROWN COUNTY
Barnhart et al No. 3 Hensley 1
A. E. Metz No. 1 A. L. Teague ..... abd

Wells completed	1
Abandoned	1
Initial production	1

CALLAHAN COUNTY
Anderson and Bailey No. 1 W. K. Bootwright ..... abd
A. C. Gentry No. 1 A. R. Kelton ..... abd
Hayek Oil Co. No. 1-10 Finley ..... gas
Henry Hodse No. 5 Finley ..... gas
Putman Oil Co. No. 9 Wadsworth ..... gas
Sample No. 13 Finley ..... gas
Spenser No. 1 R. D. Williams 2

Wells completed	7
Initial production	3
Gas	4
Abandoned	2

CLAY COUNTY
A. C. Smith No. 2 Shumake ..... abd
The Texas Co. No. 1 J. B. Hansard .. 48
Developers Oil & Gas Co. No. 18-A fee abd

Wells completed	3
Initial production	48
Abandoned	2

COLEMAN COUNTY
Aid Herb et al No. 1 C. E. Burns ..... abd
Green and Ice No. 1 Henderson ..... abd

Wells completed	2
Abandoned	2

DENTON COUNTY
Freeman Brothers No. 1 Fee ..... abd
Roanoke Development Co. No. 1 Lee Litsey ..... abd

Wells completed	2
Abandoned	2

EASTLAND COUNTY
Texas Pacific Coal & Oil Co. No. 2 C. E. Allen ..... abd
Texas Pacific Coal & Oil Co. No. 13 Fee 40
Clements and Urban No. 1 W. L. Bogg. abd
Hickok Co. No. 1 Eppler 10

Wells completed	4
Initial production	50
Abandoned	2

JACK COUNTY
Brazos River Gas Co. No. 5 Clayton .. 20
R. P. Dorian No. 1 Maxey ..... abd
R. P. Dorian No. 1 Moore ..... abd
J. E. Dunaway No. 1 Cooper ..... abd
A. C. Parks No. 1 Miller ..... abd
Root Drilling Co. No. 3 Coleman-Leach abd

Wells completed	4
Initial production	20
Abandoned	5

PALO PINTO COUNTY
State Oil Corp. No. 2 Allen-Ritchie .... gas
Mac Dermott No. 1 R. D. Maxwell ..... abd
Brazos River Oil and Gas Co. No. 5 J. H. Webster ..... abd

Wells completed	3
Gas	1
Abandoned	2

SHACKELFORD COUNTY
Roeser and Pendleton No. 5 Dawson .. abd

Wells completed	1
Abandoned	1

STEPHENS COUNTY
Red Eagle Oil and Refining Co. No. 4 Lee ..... abd

Wells completed	1
Abandoned	1

TAYLOR COUNTY
Sanger et al No. 1 City of Abilene .. abd

Wells completed	1
Abandoned	1

THROCKMORTON COUNTY
J. A. Bearman No. 7 Tuton ..... abd
Douglass et al No. 1 Mrs. Stevens ..... abd
Tex Central Oil Co. No. 1 Reynolds ..... abd
Walker et al No. 4-A Cox ..... abd
A. V. Jones No. 1 W. B. Parrott ..... abd

Wells completed	5
Abandoned	5

WICHITA COUNTY
J. H. Cotton No. 2 Chilson ..... abd
Kimbell and Bostic No. 3 Hines ..... abd
Morris and Dunn No. 9 Sheldon ..... abd
Ross et al No. 21 Mitchell ..... abd
G. W. Cooper No. 24 Waggoner Brothers 40
Kimbell and Bostic No. 3-A Hines 5
Magnolia Pet. Co. No. 6 S. E. Honaker . abd
Morris and Dunn No. 8 Shelton ..... abd
The Texas Company No. 415 Waggoner .. abd
The Texas Company No. 416 Waggoner .. abd

Wells completed	10
Initial production	45
Abandoned	5

WILBARGER COUNTY
Sheldon and Martin No. 1 Wheeler 15
Schlaffke and Blair No. 1 A. Smith .. abd
The Texas Company No. 414 Waggoner .. abd

Wells completed	3
Initial production	15
Abandoned	2

YOUNG COUNTY
Ard Floyd No. 1 Belknap ..... abd
Bonner Co. No. 12 Edwards 3
J. C. Cory No. 1 Terrell ..... abd
M. A. Hays No. 1 Kinkel ..... abd
Charles J. Kleiner No. 3 Belknap ..... abd
Leberman and Tobay No. 1 Keathley .. abd
The Texas Company No. 1 Burns 125
Wooten and Reed No. 5 Henson ..... abd
D. M. Knox et al No. 3 Brashear 250
T. G. Shaw No. 1 Farmer 28
Rhea Anderson No. 1 Kunkel ..... abd
W. L. Dennegar No. 1 Stewart 17
Helena Oil & Gas Co. No. 1 Grigsby .. abd
Panhandle Refining Co. No. 1 Morris .. abd
Petroleum Prod. Co. No. 1 Jeffery ..... abd
Frank Swift No. 1 Hill 4
Wooten and Reed et al No. 6 Hinson .. abd

Wells completed	17
Initial production	425
Abandoned	11

Gulf Coast Fields

Summary of Field Operations

TEXAS

Field—	Comp.	Prod.	Abd.	Gas	Rga.	Dig.	Ttl.
Aricia	0	0	0	0	0	1	1
Barbers Hill	6	3,061	1	0	0	4	4
Batson	1	0	1	0	0	1	1
Big Creek	0	0	0	0	0	1	1
Buckeye	0	0	0	0	0	4	4
Clay Creek	2	0	2	0	0	0	0
Conroe	63	102,930	2	0	2	36	38
Damon Mound	1	165	0	0	0	1	1
Esperson	3	90	2	0	0	2	2
Goose Creek	0	0	0	0	0	1	1
Hankamer	1	135	0	0	0	1	1
High Island	0	0	0	0	0	5	5
Hockley	0	0	0	0	0	1	1
Hull	4	560	2	0	0	1	1
Humble	0	0	0	0	0	1	1
Livingston	1	1,000	0	0	0	2	2
Manvel	2	890	1	0	1	2	3
McFaddin	1	0	1	0	0	1	1
Orange	1	5	0	0	0	0	0
Orchard	1	0	1	0	0	0	0
Pierce Junct.	3	77	1	0	0	2	2
Port Neches	1	30	0	0	0	1	1
Baccoon Bend	1	256	0	0	0	1	1
Refugio	0	0	0	0	0	1	1
Saratoga	3	105	0	0	0	2	2
Spurger	0	0	0	0	0	1	1
Stratton Rdg.	1	2,000	0	0	0	0	0
Thompson	9	6,990	3	0	2	7	9
W. Columbia	0	0	0	0	0	1	1
Miscellaneous	8	2,550	5	1	4	31	37
Total May	112	130,894	22	1	11	113	123
Total April	113	143,962	15	1	13	137	150
Difference	1	22,068	7	0	2	15	27

LOUISIANA

Field—	Comp.	Prod.	Abd.	Gas	Rga.	Dig.	Ttl.
Cm. Meadows	0	0	0	0	0	1	1
Choctaw	0	0	0	0	0	1	1
Darrow	1	40	0	0	0	2	2
Dog Lake	0	0	0	0	0	1	1
Gueydan	1	311	0	0	1	1	2
Hackberry, E.	3	2,590	2	0	0	4	4
Iowa	1	0	0	1	1	4	5
Jennings	1	900	0	0	0	1	1
Lake Barre	0	0	0	0	0	3	3
Lake Wash.	1	0	1	0	0	1	1
Leesville	1	1,728	0	0	0	0	0
Lockport	0	0	0	0	1	0	1
Port Barre	2	1,566	0	0	0	1	1
Sorrento	1	0	1	0	0	0	0
Starks	2	1,400	1	0	1	0	1
Sulphur	0	0	0	0	0	3	3
Sweet Lake	0	0	0	0	0	1	1
Vinton	0	0	0	0	0	1	1
Miscellaneous	3	0	3	0	3	9	12
Total May	17	8,535	3	1	7	34	41
Total April	12	7,190	5	0	7	33	40
Difference	5	1,345	3	1	0	1	1

Total Gulf Coast	Comp.	Prod.	Abd.	Gas	Rga.	Dig.	Ttl.
	129	129,429	30	2	18	146	164
Ttl. April	125	151,152	20	1	20	170	190
Difference	4	21,723	10	1	2	24	26

Texas Coast

WELLS COMPLETED

BARBERS HILL—CHAMBERS COUNTY
O. K. Winfree, Texas Gulf Prod. Co. 1.. 726
Wilburn, Mills Bennett Prod. Co. 6-A ... 1170
Wilburn, Sinclair Prairie Oil Co. 11 ... 700
Wilburn, Texas Co. 9 400
Lawrence, Texas Co. 3 ..... abd
Chambers County, Yount Lee Oil Co. 20 65

Wells completed	6
Production	3061
Abandoned	1

BATSON-HARDIN COUNTY
Bates, East Batson Oil Co. 4 ..... abd

CLAY CREEK—WASHINGTON COUNTY
Bimage, Clay Creek Oil Co. 2 ..... abd
Schulte, Sun Oil Co. 1 ..... abd

Wells completed	2
Abandoned	2

CONROE—MONTGOMERY COUNTY
Hall-Crump, Amerada Pet. Corp. 1 1440
Keystone Mills, A. & P. Prod. Co. 2 2830
South Tex. Dev. Co., Butler & Horne 1. 315
Thompson, Farlyn Oil Co. 1 1920
Folson, Peltex Oil Co. and Kirby Pet. Co. 5 960
Keystone Mills, Peltex Oil Co. 2 1800
Bertrand, Gulf Coast Drlg. & Prod. Co. 1 485
Keystone Mills, Gulf Coast Drlg. & Prod. Co. 3-B 2160
J. L. Hensley, Gulf Coast Drlg. & Prod. Co. 1 2160
Keystone Mills, Gulf Coast Drlg. & Prod. Co. 8-A 1824
Keystone Mills, Gulf Coast Drlg. & Prod. Co. 10-A 2160
Keystone Mills, Gulf Coast Drlg. & Prod. Co. 4-B 1560
Keystone Mills, Gulf Coast Drlg. & Prod. Co. 6-B 2940
South Tex. Dev. Co., Hamill & Smith 1. 2880
John Massey, Harrison & Abercrombie 4 1200
Arthur Wiggins, Harrison & Abercrombie 2 720
Ben Wiggins, Harrison & Abercrombie 3 960
Ben Wiggins, Harrison & Abercrombie 4 2160
South Texas Dev. Co., Hi-Grade Oil Co. 1 1800
South Texas Dev. Co., Horne Oil Co. 1.. 480
Dobbins, Houston Oil Co. and Tide Water Oil Co. 5 750
Dobbins, Houston Oil Co. and Tide Water Oil Co. 2 120
Pearl Collins, Humble Oil & Ref. Co. 2. 1820
Hill, Humble Oil & Ref. Co. 1 2160
Wiggins & Athey, Humble Oil & Ref. Co. 1 1370
South Texas Dev. Co., Humble Oil & Ref. Co. 46 1705
E. Moorehead, Humble Oil & Ref. Co. 2. 2160
Moore, Humble Oil & Ref. Co. 36 2160
B. E. Jones, Humble Oil & Ref. Co. 4.. 1965
Plaefflin, Humble Oil & Ref. Co. 5 2160
L. B. Hooker, Humble Oil & Ref. Co. 6 abd
Madeley, Humble Oil & Ref. Co. 35 ... 2040
McComb, Humble Oil & Ref. Co. 3 1945
Hooper, W. M. Massier, receiver, 2 1680
Springfield, Mortex Oil Co. 1 1750
Wiggins heirs, Navarro Oil Co. 1 1032
South Texas Dev. Co., Neversuch Oil Co. 4 1560
Granger, North Star Oil Co. 1 ..... abd
Griffin, Republic Prod. Co. 2 2445
Granger, South Gulf Oil Corp. 2 594
South Texas Dev. Co., Southern Liberty Oil Co. 1-D 1920
Allen, Southern Liberty Oil Co. 1 2160
Harris, Southern Liberty Oil Co. 1 385
South Texas Dev. Co., Southern Liberty Oil Co. 2-B 1800
Etheridge, Strake Pet., Inc. 3 2100
Madeley, Standard Oil Co. of Kans. 2-A 2280
Foster, Sun Oil Co. 3 2280
Foster, Sun Oil Co. 4 1440
Jones, Sun Oil Co. 1 2135
Jones, Sun Oil Co. 3 2040
Foster, Sun Oil Co. 2 1535
Moody, Texas Co. 21 3280
Moody, Texas Co. 22 1535
Moody, Texas Co. 24 1320
Moody, Texas Co. 25 1695
Moody, Texas Co. 27 2160
Rhodes, Texas Co. 13 1750
Keystone Mills, Texas Unity Oil Co. 1.. 800
Dean, Tide Water Oil Co. 6 1415
Dean, Tide Water Oil Co. 7 1005
Eichletz, Tide Water Oil Co. 1 2085
Krohn, Tide Water Oil Co. 3 3255
South Texas Dev. Co., Tide Water Oil Co. and Republic Prod. Co. 5 3185

Wells completed	63
Production	102,930
Abandoned	2

DAMON MOUND—BRAZORIA COUNTY
Duncan, Sinclair-Prairie Oil Co. 1 165

ESPERSON—LIBERTY COUNTY
Davis, Cranfill-Reynolds Co. 7 ..... abd
Esperson, Cranfill-Reynolds Co. 8 90
Moores Bluff, Cranfill-Reynolds Co. 10. abd

Wells completed	3
Production	90
Abandoned	2

HANKAMER—LIBERTY COUNTY
Crowe & Jacobs, Gulf Prod. Co. 1 185

HULL—LIBERTY COUNTY
Taylor, Jack Modisette 1 ..... abd
Ward, Elicpse Oil Co. 1 500
Noble & Lynd, Edwards Drlg. Co. 1 .... abd
Knox-Nelson-Layton, Unique Oil Co. 1 . 60

Wells completed	4
Production	560
Abandoned	2

LIVINGSTON—POLK COUNTY
Davis & Holmes, Shell Pet. Corp. 1 ... 1000

MANVEL—BRAZORIA COUNTY
Sherwood, Burton Drlg. Co. 1 ..... abd
Davis, Texas Co. 1 890

Wells completed	2
Production	890
Abandoned	1

McFADDIN DISTRICT—REFUGIO COUNTY
O'Connor, Humble Oil & Ref. Co. 5 ... abd

ORANGE—ORANGE COUNTY
Hager, Sinclair-Prairie Oil Co. 3 5

ORCHARD—FORT BEND COUNTY
Moore, Gulf Prod. Co. 35 ..... abd

PIERCE JUNCTION—HARRIS COUNTY
Mowery, S. B. Ward 1 ..... abd
Setegast, Rio Bravo Oil Co. 14-A 45
Herman, Rock Drlg. Co. 1 32

Wells completed	3
Production	77
Abandoned	1

PORT NECHES—ORANGE COUNTY
Kuhn, Texas Co. 1 30

RACCOON BEND—AUSTIN COUNTY
Wilson, Humble Oil & Ref. Co. 5 256

SARATOGA—HARDIN COUNTY
Jordit, Rio Bravo Oil Co. 96 74
Jordit, Rio Bravo Oil Co. 97 31

Wells completed	2
Production	105

STRATTON RIDGE—BRAZORIA COUNTY
Seaburn, Amerada Pet. Corp. and Rycade Oil Corp. 3 2000

THOMPSON (RABBS RIDGE)—FORT BEND COUNTY
Gehr, Cullen & West 1 ..... abd
Mary Gubbels, Gulf Prod. Co. 3-A 920
Jack Gubbels, Gulf Prod. Co. 5 1980
F. I. Booth, Humble Oil & Ref. Co. and Gulf Prod. Co. 14-A 1080
F. I. Booth, Humble Oil & Ref. Co. and Gulf Prod. Co. 15-A 1200
George, Humble Oil & Ref. Co. and Gulf Prod. Co. 6-A ..... abd
Lockwood, Humble Oil & Ref. Co. and Gulf Prod. Co. 13 ..... abd
Lockwood & Sharp, Humble Oil & Ref. Co. and Gulf Prod. Co. 18-A 1510
Meyer, Humble Oil & Ref. Co. and Gulf Prod. Co. 7 1200

Wells completed	9
Production	6990
Abandoned	3

Miscellaneous Texas

AUSTIN COUNTY
C. K. Hamm Sur., Swearinger, Cranfill-Reynolds Co. 1 ..... abd

HARRIS COUNTY
Tomball, Koba Magnolia Pet. Co. 1 ... 2000

JEFFERSON COUNTY
Cheek, Todd, Jack Schultz 2 ..... abd

MONTGOMERY COUNTY
Kronkrite Sur., Drought, A. H. Parsons et al 2 ..... abd

POLK COUNTY
Peter J. Menard Sur., Duke, Anderson et al 1 ..... abd

REFUGIO COUNTY
Greta—J. M. O'Brien, George E. Smith et al 1 550

VICTORIA COUNTY
R. Manchola Sur., Terrell, Stoneleigh Oil & Gas Co. 1 ..... gas

WHARTON COUNTY
H&T.C. Sur. No. 8, Mitchell, Smith et al 1 ..... abd

Wells completed 8
Production 2550
Abandoned 5
Gas 1

South Louisiana Fields

DARROW—ASCENSION PARISH
Community, Rio Bravo Oil Co. 2 40

GUEYDAN—VERMILION PARISH
Mulvey, Pure Oil Co. 3 311

EAST HACKBERRY—CAMERON PARISH
Humble, Union Sulphur Co. 5 ..... abd
State, Texas Co. 10-B 2580
Landry, East Hackberry Oil Co. 1 .... abd

Wells completed 3
Production 2590
Abandoned 2

IOWA—JEFFERSON DAVIS PARISH
Stafford, Shell Pet. Corp. 1 ..... gas

JENNINGS—ACADIA PARISH
Latrielle, S. Rhodes 107 900

LAKE WASHINGTON—PLAQUEMINES PARISH
Cockrell-Moran, Humble Oil & Ref. 9.. abd

LEESVILLE—LaFOURCHE PARISH
L.L.&E., Texas Co. 4 1728

PORT BARRE—ST. LANDRY PARISH
Botney Bay, Texas Co. 4 166
Wilson & Cockran, Gulf Ref. Co. 2 1400

Wells completed 2
Production 1566

SORRENTO—ASCENSION PARISH
United Land Co., Union Sulphur Co. 24.. abd

STARKS—CALCASIEU PARISH
Latcher-Moore, Gulf Ref. Co. 32 1400
Latcher-Moore, Union Sulphur Co. 1 ... abd

Wells completed 2
Production 1400
Abandoned 1

Miscellaneous Louisiana

ALLEN PARISH
Sec. 34-4s-6w, Long Bell, O'Brien Bros. 1 ..... abd

PLAQUEMINES PARISH
Sec. 12-18s-25e, LaFourche Levee, Texas Gulf Sulphur Co. 1 ..... abd

VERMILLION PARISH
Sec. 10-15s-1e, Hebert, Shell Pet. Corp. 1 ..... abd

Wells completed 3
Production 0
Abandoned 3

Louisiana Fields

Summary of Field Operations

NORTH LOUISIANA

Field—	Comp.	Prod.	Dry	Gas*	Rgs.	Dig.	Ttl.
Avoyelles	0	0	0	0	1	1	2
Beauregard	0	0	0	0	1	3	4
Bienville	0	0	0	0	0	3	3
Bossier	1	0	1	0	1	4	5
Caddo	5	0	3	2	3	6	9
Caldwell	0	0	0	0	0	1	1
Catahoula	0	0	0	0	0	1	1
Claiborne	0	0	0	0	1	3	4
DeSoto	1	0	1	0	2	15	17
Grant	1	0	0	0	0	1	1
Jackson	0	0	0	0	0	1	1
Morehouse	0	0	0	0	3	3	6
Natchitoches	1	0	1	0	1	3	4
Ouachita	1	0	0	1	1	3	4
Rapides	0	0	0	0	4	2	6
Red River	1	20	0	0	1	2	3
Sabine	24	1,290	17	0	44	14	58
Tensas	0	0	0	0	0	1	1
Union	1	0	1	0	1	1	2
Vernon	0	0	0	0	1	1	2
Webster	2	0	2	0	2	0	2
West Carroll	0	0	0	0	0	1	1
Total May	37	1,310	26	3	68	70	138
Total April	20	3,281	5	3	58	64	122
Difference	17	1,971	21	0	10	6	16

*Gas production: Caddo, 13,000,000; Ouachita, 844,000; Total 13,844,000.

WELLS COMPLETED

BOSSIER PARISH
34-20-14 G. C. Lyon, Gibson Oil Co. No. 1 (loc.) ..... abd
11-18-11 Allen heirs, E. B. Williams et al 1 ..... dry

CADDO PARISH
10-18-16 Sharpe, Nick Barbare, 1 ..... gas
14-22-15 Hawkins, Caddo Parish Oil & Gas Co., 1 ..... dry
11-22-14 C. H. Dominick, Gibson Oil Corp., 1 ..... dry
11-18-16 Sharpe, Louana Oil & Gas Co. 1 dry
1-18-16 Shuttleworth, Pyramid Oil & Gas Co., 1 ..... gas
Gas production—13,000,000 cu. ft.

DeSOTO PARISH
11-12-13 T. J. Fleming, Lamo Oil & Gas Corp., 1 ..... dry
7-12-12 Mickle, DeSoto Development Co., Inc., 1 (drk.) ..... abd

NATCHITOCHES PARISH
10- 9-10 Ross-Olive, Southland Development Co., 1 ..... dry

OUACHITA PARISH
14-18- 5 Van Horn, Inabnet & Pipes, 1 gas
Gas production—844,000 cu. ft.

RED RIVER PARISH
4-12-10 Wilkinson, T. G. Shaw, trustee, 1 20

SABINE PARISH
18- 7-10 J. J. Small, Alford & Avant, 1 (loc.) ..... abd
18- 9-13 Jackson, Alford & Cleary, 1 (loc.) ..... abd
18- 7-11 Cutrer, T. B. Carpenter et al 1 dry
23- 8-12 M. D. Russell, Dyole et al, 1.. dry
2- 7-13 G. Martinez, Edwards & Hubier, 1 (drk.) ..... abd
5- 8-13 Long-Bell Lumber Co., R. L. Gay, 3 175
28- 8-11 Lites, Graham Prod. Co., 1.. dry
11- 7-11 Quayhagien, E. D. Holcomb, 1 dry
5- 7-12 Bowman-Hicks, Loring Oil Co. 22 ..... dry
26- 8-12 W. M. Cooper, Loring Oil Co., 1 dry
16- 7-11 Stille, C. H. Lyons, 1 150
21 9-13 Frost Lumber Industries, Joe Modisette, 2 ..... dry
2- 7-11 Brumley, H. C. Moulding, 1.. dry
32- 8-10 Chaddick, L. K. McGuffin, 2 (loc.) ..... abd
30- 8-11 A. C. Phillips, Ohio Oil Co., 1 dry
10- 9-13 Burckett, A. C. Scott, 1 100
13- 7-11 Lafitte, Scully & Beach, 4 (loc.) abd
13- 7-11 Lafitte, Scully & Beach, 5 (loc.) abd
7- 7-10 E. B. Smith, Service Drilling & Royalties Co., 3 40
7- 7-10 E. B. Smith, Service Drilling & Royalties Co., 4 800
9- 9-13 Paul, R. M. Self, 1 (drk.)..... abd
36- 8-11 Stille, Richey Production Co., 1 dry
36- 8-12 J. W. Hughes, Robertson Drilling Co., 1 ..... dry
35- 8-11 Maines, Roshko & Labarre, 1 .. dry
5- 7-13 Sabine Lumber Co., Otis A. Roberts, 1 ..... dry
5- 7-13 Sabine Lumber Co., Roberts & Sledge, 2 ..... dry
8- 7-11 Raiford Lilley, C. T. Ruffin, 1.. 20
30- 8-11 C. E. Cooper, The Texas Co., 1 dry
16- 7-11 Ponder, The Texas Co., 1 5
11- 6-11 La. Long Leaf Lumber Co., Triangle Drilling Co., 1..... dry
25- 8-11 Francis Cross, W. M. Ungerman, 1 ..... dry

Wells completed 24
Dry 17
Production 1290

UNION PARISH
27-22-1e Union Sawmill Co., Wingfield et al's 1 ..... dry

WEBSTER PARISH
36-22-10 Pardee Land Co., W. O. Blackman, trustee, 1 ..... dry
11-18-10 Walker, J. E. Bundy, 1 (loc.) abd
14-19-10 Drake estate, R. E. L. Silvey 1 dry

ARKANSAS

Field—	Comp.	Prod.	Dry	Gas	Rgs.	Dig.	Ttl.
Cleburn	0	0	0	0	0	1	1
Cleveland	0	0	0	0	1	0	1
Columbia	0	0	0	0	1	2	3
Desha	0	0	0	0	0	1	1
Hempstead	0	0	0	0	1	1	2
Lafayette	0	0	0	0	0	2	2
Jefferson	0	0	0	0	0	1	1
Lincoln	0	0	0	0	0	1	1
Little River	0	0	0	0	0	3	3
Miller	3	150	2	0	5	11	16
Nevada	0	0	0	0	0	1	1
Ouachita	0	0	0	0	1	1	2
Prairie	0	0	0	0	1	0	1
Sevier	0	0	0	0	0	1	1
Union	3	0	3	0	1	3	4
Woodruff	0	0	0	0	0	1	1
Yell	0	0	0	0	0	1	1
Total May	6	150	5	0	11	31	42
Total April	3	0	3	0	7	30	37
Difference	3	150	2	0	4	1	5

WELLS COMPLETED

MILLER COUNTY
34-15-26 Harold E. Beck, Duluth-Arkansas Oil Co., 1 150
32-15-26 B. F. Smith, Jenkins Brothers 1 dry
31-17-26 Barker, Roy Knowlton, 1 .... dry

UNION COUNTY
19-18-11 Union Sawmill Co., Tom Nash, 1 dry
2-18-13 Emily King, Wilson & Chapman, 2 ..... dry
2-18-13 D. Norman, Wilson & Chapman, 1-A ..... dry

ALABAMA

Field—	Comp.	Prod.	Dry	Gas	Rgs.	Dig.	Ttl.
Baldwin	0	0	0	0	0	1	1
Cullman	0	0	0	0	0	1	1
Lamar	0	0	0	0	0	1	1
Escambia	0	0	0	0	0	1	1
Washington	1	0	1	0	0	0	0
Total May	1	0	1	0	0	4	4
Total April	0	0	0	0	2	2	4
Difference	1	0	1	0	2	2	0

WELLS COMPLETED

WASHINGTON COUNTY
26- 7-1w Wilson, South Alabama Oil & Gas Co., 1 ..... dry

MISSISSIPPI

Field—	Comp.	Prod.	Dry	Gas	Rgs.	Dig.	Ttl.
Amite	0	0	0	0	0	1	1
Bolivar	1	0	1	0	0	0	0
Clarke	0	0	0	0	0	1	1
Covington	0	0	0	0	0	2	2
George	0	0	0	0	0	1	1
Hinds	1	0	0	1	0	2	2
Jones	0	0	0	0	0	1	1
Lamar	0	0	0	0	0	2	2
Monroe	0	0	0	0	0	1	1
Newton	0	0	0	0	0	1	1
Pearl River	0	0	0	0	0	1	1
Rankin	1	0	0	0	1	1	2
Scott	0	0	0	0	0	1	1
Sunflower	0	0	0	0	0	1	1
Webster	0	0	0	0	0	1	1
Wilkinson	0	0	0	0	0	1	1
Total May	2	0	1	2	0	14	20
Total April	2	0	1	1	1	16	17
Difference	1	0	0	1	1	2	3

WELLS COMPLETED

BOLIVAR COUNTY
3-25- 7 Knowlton, Westbrook-Thompson Holding Co., 1 ..... dry

HINDS COUNTY
26- 6-1e W. B. Montgomery, Ferguson-Fuller et al's 1..... gas
Gas production—8,000,000 cu. ft.

RANKIN COUNTY
6- 5-2e Rankinside, J. A. Baker et al's 3 ..... gas
Gas production—43,132,000 cu. ft.

EAST TEXAS (Border Counties)

Field—	Comp.	Prod.	Dry	Gas	Rgs.	Dig.	Ttl.
Bowie	1	0	1	0	0	1	1
Cass	2	0	2	0	0	1	1
Harrison	0	0	0	0	0	1	1
Marion	0	0	0	0	0	3	3
Panola	1	0	1	0	0	3	3
Red River	0	0	0	0	1	2	3
Shelby	0	0	0	0	0	3	3
Total May	4	0	4	0	1	14	15
Total April	6	0	6	0	3	28	31
Difference	2	0	2	0	2	14	16

WELLS COMPLETED

BOWIE COUNTY
J. H. Dyer Survey; W. W. Whybark, Tarkington & Jones, 1 ..... dry

CASS COUNTY
A. H. Latimer Survey; Foy Bryan, Joiner Pet. Co., 1 ..... dry
Evans Watson Survey; First National Bank, C. E. Murdock, 1 ..... dry

PANOLA COUNTY
James Hooks Survey; J. W. Williams, J. L. Nelson et al's 1 ..... dry

Rocky Mountain Area

MONTANA

Summary of Field Operations

County—	Comp.	Prod.	Dry	Gas	Rgs.	Dig.	Ttl.
Carbon	0	0	0	0	0	6	6
Glacier	2	195	0	0	3	9	12
Liberty	0	0	0	0	0	2	2
Teton	0	0	0	0	0	3	3
Toole	0	0	0	0	0	4	4
Miscel.	0	0	0	0	1	10	11
Total, May	2	195	0	0	4	34	38
Total April	3	65	0	1	2	33	35
Difference	1	130	0	1	2	1	3

WELLS COMPLETED

11-34-6w Kiesel, Alberta-Pacific Consol. 1 100
15-35-6w Blackfeet, Santa Rita O. & G. Co. 1 95

Wells completed 2
Production 195

WYOMING

Summary of Field Operations

County—	Comp.	Prod.	Dry	Gas	Rgs.	Dig.	Ttl.
Big Horn	0	0	0	0	1	5	6
Carbon	0	0	0	0	1	4	5
Converse	0	0	0	0	0	5	5
Crook	0	0	0	0	0	5	5
Fremont	0	0	0	0	0	5	5
Hot Springs	0	0	0	0	0	3	3
Natrona	1	35	0	0	2	10	12
Sweetwater	1	0	0	1	3	5	8
Sublet	0	0	0	0	1	3	4
Uinta	0	0	0	0	0	2	2
Weston	2	15	1	0	2	4	6
Miscel.	0	0	0	0	2	6	8
Total May	4	50	1	1	12	57	69
Total April	2	0	1	1	9	57	66
Difference	2	50	0	0	3	0	3

WELLS COMPLETED

31-46-63 Thierry, Jones, Rose & Harberson, 3 ..... dry
22-46-64 General Oil Co. 1..... 15
18-33-82 Bessemer Oil Co. 7 35
2-17-104 Mullen, Mountain Fuel Supply Co. 2 ..... gas

Wells completed 4
Production 50
Gas 2,150,000
Dry and abandoned 1

NEW MEXICO

Summary of Field Operations

County—	Comp.	Prod.	Dry	Gas	Rgs.	Dig.	Ttl.
De Baca	1	0	1	0	0	1	1
Eddy	2	33	0	0	3	6	9
Lea	5	13,997	1	0	0	5	5
McKinley	0	0	0	0	0	7	7
San Juan	0	0	0	0	0	10	10
San Miguel	0	0	0	0	0	3	4
Santa Fe	0	0	0	0	0	1	1
Valencia	0	0	0	0	0	3	3
Miscel.	0	0	0	0	1	10	11
Total May	8	14,030	2	0	5	46	51
Total April	9	9,780	3	0	6	55	61
Difference	1	4,250	1	0	1	9	10

WELLS COMPLETED

24-18-37 State, Texas & Pacific C. & O. Co., 4-G 6031
20-18-38 McKinley, California Co. 2..5508
18-18-38 Hardin, Humble O. & Ref. Co. 1 ..... dry
3-19-38 Byers, Stanolind O. & G. Co. 29 1256
9-19-38 State, Stanolind O. & G. Co. 8.1102
5-18-27 Brainard, Finley, Wood & Brainard, 5 15
22-17-29 Dodd, Leonard-Barnsdall, 1... 18
6-4n-20 Wood, Matador Oil Co. 1..... abd

Wells completed 8
Production 14,030
Dry and abandoned 2

UTAH

County—	Comp.	Prod.	Dry	Gas	Rgs.	Dig.	Ttl.
Total May	0	0	0	0	1	15	16
Total April	0	0	0	0	0	15	15
Difference	0	0	0	0	1	0	1

COLORADO

Summary of Field Operations

County—	Comp.	Prod.	Dry	Gas	Rgs.	Dig.	Ttl.
Boulder	0	0	0	0	0	4	4
Elbert	0	0	0	0	0	4	4
Fremont	0	0	0	0	0	2	2
Jackson	0	0	0	0	0	5	5
La Plata	0	0	0	0	1	2	3
Larimer	0	0	0	0	0	3	3
Moffat	0	0	0	0	0	2	2
Morgan	0	0	0	0	1	1	2
Rio Blanco	0	0	0	0	0	2	2
Routt	0	0	0	0	1	1	2
Weld	0	0	0	0	0	5	5
Miscel.	0	0	0	0	0	19	19
Total May	0	0	0	0	5	56	61
Total April	0	0	0	0	0	55	61
Difference	0	0	0	0	1	1	0

Eastern Fields

Summary of Completed Work

Field—	Comp.	Prod.	Dry	Gas
Bradford	22	33	0	0
Allegany	3	16	0	0
Venango-Clarion	2	0	1	1
Butler-Armstrong	2	6	0	0
N. Y.-Penn. Gas	6	0	0	6
S. W. Penn.	2	0	1	1
Southeast Ohio	11	67	5	3
West Virginia	16	181	6	5
Total May	74	303	13	16
Total April	56	221	7	12
Difference	18	82	6	4

Summary of Work Under Way

Field—	Rigs	Drlg.	Ttl.
Bradford	6	21	29
Allegany	1	5	6
Venango-Clarion	0	6	6
Butler-Armstrong	0	0	0
Middle Field	0	1	1
N. Y.-Penna. Gas	12	24	36
S. W. Penna.	2	3	5
Southeast Ohio	5	14	19
West Virginia	34	46	70
Total May	52	126	178
Total April	33	119	152
Difference	19	7	26

WELLS COMPLETED

ALLEGANY
Fee, Ryder Scott Co. 5
Fee, Joseph Sutter 1
Herrick, N. V. V. Franchot 10

Wells completed 3
Production 16

VENANGO-CLARION
Fee, Fryburg Motor Co. 2 ..... gas
Kahle, A. E. Kaber 4 ..... dry

Wells completed 3
Dry 1
Gas 1

BUTLER-ARMSTRONG
Turner, W. E. and A. E. Pipher 4 5
McCollough, Willis M. Ruby 10 1

Wells completed 2
Production 6

N. Y.-PENNA. GAS
Bowyer, Dorr Martin et al ..... gas
Reynolds, George Donovan ..... gas
Crisci, E. Ivers et al 1 ..... gas
Baroody, C. E. Ivers et al 1 ..... gas
Greely, Belmont Drilling Co. ..... gas
Patrick, Peterman et al ..... gas

Wells completed 6
Gas 6

BRADFORD
Completions on Bradford Transit lines 37 37
Fee, Forest Oil Corp. 1
Bingham 430, G. C. Grow 50 2
Corwin, Corwin & Gallagher 21 ....pressure
Fee, Lincoln & Brink 53 2
Fee, Lincoln & Brink 54 1

Wells completed 32
Production 33

Southwest Pennsylvania

WELLS COMPLETED
WASHINGTON COUNTY
Roach, Wise Oil & Gas Co. 1 ..... gas
Wright, Ed Tague 1 ..... dry

Southeast Ohio

WELLS COMPLETED
COSHOCTON COUNTY
Little, Preston Oil Co. 2 35

JEFFERSON COUNTY
Telfer heirs, C. S. Kelley et al 1 ..... dry

LICKING COUNTY
Boyd, McClay Bros. 1 40

MEDINA COUNTY
Broadsword, Curtis & Eaken 9 ..... dry

MONROE COUNTY
Quigley, Southerland O. & G. Co. 1 .... gas
Reed, E. G. Cunningham et al 1 ..... gas

NOBLE COUNTY
Ullman, Scott O. & G. Co. 1 ..... gas
Cunningham, W. M. Patten et al 11 .... dry
Harper, Harper Bros. 2 ..... dry

VINTON COUNTY
Co-operative Oil Co., Co-operative Oil Co. 3 3

WASHINGTON COUNTY
Harris, W. H. Knowlton et al 1 ..... dry

West Virginia

WELLS COMPLETED
BOONE COUNTY
McKinney, C. P. Jones et al 1 ..... gas

CABELL COUNTY
Holton, D. R. Campbell 2 ..... gas
Darnell et al, R. H. Adkins et al 1 .... gas

CALHOUN COUNTY
Gainer, W. A. Bickerstaff 1 ..... gas
Grimm, Poling & Mollahan 1 3

HANCOCK COUNTY
Brenneman, R. J. Braden & Co. 49 1

PLEASANTS COUNTY
Boley, Dinsmore & Co. 6 ..... dry
Boley, Dinsmore & Co. 8 2
Nye, M. C. Martin, Jr. 24 ..... dry
Hammat, Pure Grit Oil Co. 4 ..... dry
RITCHIE COUNTY
Robinson, Hinton Farm Oil Co. 1 160
Boehm & Neeley, Frank Finley et al 1. 25
Ball, Lucas and Mahaney 1 ..... dry
Moran, H. M. Dilley 1 ..... dry
ROANE COUNTY
Knott, D. S. Fisher et al 1 ..... gas
WOOD COUNTY
Palmer, Burnt Hill O. & G. Co. 1 ..... dry

Indiana Fields

Summary of Field Operations

	Comp.	Prod.	Dry	Gas	Rigs	Drg.	Ttl.
Gibson	0	0	0	0	1	3	4
Pike	1	0	0	1	0	7	7
Sullivan	0	0	0	0	0	4	4
Daviess	0	0	0	0	0	2	2
Warrick	0	0	0	0	0	1	1
Vigo	0	0	0	0	0	2	2
Spencer	0	0	0	0	0	4	4
Perry	0	0	0	0	0	5	5
Knox	0	0	0	0	0	3	3
Harrison	4	0	0	4	0	0	0
Hamilton	0	0	0	0	0	2	2
Dearborn	0	0	0	0	0	1	1
Greene	0	0	0	0	0	2	2
Switzerland	0	0	0	0	0	3	3
St. Joe	0	0	0	0	0	1	1
Rush	0	0	0	0	0	2	2
DeKalb	0	0	0	0	0	1	1
Pulaski	0	0	0	0	0	1	1
Elkhart	0	0	0	0	0	1	1
Johnson	0	0	0	0	0	1	1
Kosciusko	0	0	0	0	0	1	1
Stark	0	0	0	0	0	2	2
Jasper	0	0	0	0	0	1	1
Martin	1	10	0	0	0	1	1
Huntington	0	0	0	0	0	1	1
Tippecanoe	0	0	0	0	0	1	1
Vanderburg	1	28	0	0	0	4	4
Total May	7	38	0	5	1	57	58
Total April	4	25	2	0	3	52	55
Difference	3	13	2	5	2	5	3

WELLS COMPLETED
PIKE COUNTY
Washington—H. J. Miley, H. Risher & Co. 2 ..... gas
Logan—Glendora Robling, Chas. L. Diver & Co. 2 ..... abd
Tom Wilson, L. Burnside Smith 3 ... abd
Wells completed 1
Gas 1
Abandoned 2
HARRISON COUNTY
Webster—William Longbottom, Indiana Utilities Corp. 1, 2, 3, 4 ..... gas
Wells completed 4
Gas 4
MARTIN COUNTY
Perry—John Larkin, Sproull & Co. 2 .. 10
VANDERBURG COUNTY
Center—Indiana Gas & Electric, Knapp & Woods 1 28

Central Ohio Fields

Summary of Field Operations

	Comp.	Prod.	Dry	Gas	Rigs	Drg.	Ttl.
Ashland	1	0	1	0	1	0	1
Lorain	0	0	0	0	0	1	1
Medina	1	0	0	1	1	2	3
Knox	0	0	0	0	2	1	3
Summit	0	0	0	0	1	1	2
Fairfield	1	0	1	0	0	1	1
Coshocton	1	25	0	0	2	1	3
Licking	1	5	0	0	1	2	3
Richland	0	0	0	0	0	1	1
Muskingum	0	0	0	0	1	4	5
Athens	0	0	0	0	2	5	7
Tuscarawas	0	0	0	0	1	4	5
Holmes	0	0	0	0	0	1	1
Stark	7	0	1	6	10	16	26
Belmont	1	0	0	1	2	7	9
Guernsey	0	0	0	0	0	4	4
Crawford	0	0	0	0	0	1	1
Gallia	0	0	0	0	0	1	1
Scioto	0	0	0	0	0	1	1
Pike	0	0	0	0	0	2	2
Carroll	1	0	1	0	0	4	4
Columbiana	0	0	0	0	0	1	1
Total May	14	30	4	8	24	61	85
Total April	17	50	2	12	17	56	73
Difference	3	20	1	4	7	5	12

WELLS COMPLETED
ASHLAND COUNTY
Perry—Edward Gardner, Eddy & Co. 4. dry
MEDINA COUNTY
Spencer—H. J. Still, C. L. and C. A. Williams 1 ..... gas
FAIRFIELD COUNTY
Berne—C. B. Ricketts, City Nat. Gas Works 4 ..... dry
COSHOCTON COUNTY
Perry—Ward Little, Preston Oil 2-1,521 25
LICKING COUNTY
Perry—Besse F. Hoyt, Ridgeway & Co. 1 5
STARK COUNTY
Jackson—Ed A. Frank, East Ohio Gas 1 gas
J. Montgomery, Barnhart & Co. 1 ... gas
O. Clovis, Cable & Co. 1 ..... dry
W. and T. Immel, Pfeiffer & Co. 1 .. gas
Chas. Oberlin, Kime & Co. 4 ..... gas
Plain—Anna Gill, Ohio Fuel Gas 2-5,713 gas
Wm. F. Kuntz, Ohio Fuel Gas 1-5,705 gas
Wells completed 7
Dry 1
Gas 6
BELMONT COUNTY
Union—J. T. Murphy, O. K. Oil & Gas 2 gas
CARROLL COUNTY
Orange—Thos. Leggett, Collins, Linsell & Co. 1 ..... dry

Lima Fields

Summary of Field Operations

	Comp.	Prod.	Dry	Gas	Rigs	Drg.	Ttl.
Wood	0	0	0	0	0	3	3
Hancock	1	25	0	0	0	0	0
Allen	0	0	0	0	0	3	3
Auglaize	0	0	0	0	0	2	2
Mercer	1	18	0	0	0	1	1
Sandusky	0	0	0	0	1	1	2
Lucas	0	0	0	0	0	1	1
Ottawa	0	0	0	0	0	1	1
Seneca	1	0	0	1	0	2	2
Wyandot	3	410	0	0	1	5	6
Marion	0	0	0	0	0	1	1
Total May	6	453	0	1	2	20	22
Total April	7	89	0	3	6	15	21
Difference	1	364	0	2	4	5	1

WELLS COMPLETED
WOOD COUNTY
Liberty—S. H. Powell, Ohio Oil 6 ..... abd
H. C. Killian, Ohio Oil 12 ..... abd
Sam Mercer, Ohio Oil 10, 12 .. .. abd
Plain—O. C. Mitchell, Ohio Oil 32 ..... abd
Abandoned 5
HANCOCK COUNTY
Eagle—Myrtle Fox, B. Porter & Co. 20.. 25
MERCER COUNTY
Granville—Langenkamp, Henry Langencamp 4 18
SENECA COUNTY
Liberty—Grimes-Shumakerm Tiffin Industrial Gas 2 ..... gas
Eden—J. C. Yeager, D. R. McCray 3 .. abd
Wells completed 1
Gas 1
Abandoned 1
WYANDOT COUNTY
Crane—Carl Smith, McPheron & Co. 2.. 60
Mary Loverick, Upper Sandusky Oil & Gas 1 50
Louis Brandt, Keiner & Co. 1 300
Wells completed 3
Production 410

Illinois Fields

Summary of Field Operations

	Comp.	Prod.	Dry	Rigs	Drg.	Ttl.
Clark	0	0	0	0	3	3
Coles	0	0	0	0	1	1
Crawford	0	0	0	1	1	2
Lawrence	0	0	0	0	1	1
Boone	0	0	0	0	1	1
Jefferson	0	0	0	0	1	1
Jasper	0	0	0	0	1	1
Clinton	0	0	0	0	1	1
Bond	0	0	0	0	1	1
Total May	0	0	0	1	11	12
Total April	1	0	1	1	11	12
Difference	1	0	1	0	0	0

WELLS COMPLETED
(None)

Kentucky Fields

Summary of Field Operations

	Comp.	Prod.	Dry	Gas	Rigs	Drg.	Ttl.
Ohio	4	4	3	0	0	12	12
Daviess	9	264	3	0	0	14	14
Hancock	1	0	1	0	0	7	7
McLean	0	0	0	0	0	4	4
Henderson	0	0	0	0	0	1	1
Muhlenberg	2	10	1	0	0	2	2
Taylor	0	0	0	0	0	1	1
Madison	0	0	0	0	0	1	1
Bath	0	0	0	0	0	1	1
Breckenridge	0	0	0	0	0	1	1
Greene	0	0	0	0	1	0	1
Edmonson	0	0	0	0	0	1	1
Todd	0	0	0	0	0	1	1
Grayson	0	0	0	0	1	1	2
Lee	0	0	0	0	0	1	1
Knox	0	0	0	0	0	1	1
Warren	0	0	0	0	0	2	2
Allen	2	2	1	0	0	0	0
Total May	18	280	9	0	2	51	53
Total April	4	155	2	0	2	46	48
Difference	14	125	7	0	0	5	5

WELLS COMPLETED
OHIO COUNTY
Hartford—Jim Perry, H. L. Ogle & Co. 1 dry
E. C. Dunn, Geo. Stewart & Co. 1 ... 4
O. C. Westerfield, Vickers & Co. 3... dry
L. W. Ray, Hupp, Duff & Co. 5 ..... dry
Wells completed 4
Production 4
Dry 3
DAVIESS COUNTY
Owensboro—Ramsey Bros., Ellis & Ashby 6 17
Wellington Aud, Ellis & Ashby 1 5
W. D. Wright, Hupp & Duff 4 25
B. W. Bristow, A. D. Schaffer 1 2
S. S. Nalley, A. D. Schaffer 1 15
R. E. Jackson, Brenner & Adams 1 . 200
Asa Bratcher, Hupp, French & Co. 4 dry
W. Foster, Lowman & Co. 1 ..... dry
R. E. Jackson, Frank Cox & Co. 2 ... dry
Wells completed 9
Production 264
Dry 3
HANCOCK COUNTY
Pellville—Brown School House, Ray Baird & Co. 1 ..... dry
MUHLENBERG COUNTY
Greenville—W. H. Hudson, Johnson Oil & Ref. Co. 1 ..... dry
Atherton heirs, Mike Callas & Co. 3.. 10
Wells completed 2
Production 10
Dry 1
ALLEN COUNTY
Scottsville—W. M. Beam, W. B. Bastress 1 ..... dry
Jeff Tabor, Harry Morris & Son 8 .. 2
Wells completed 2
Production 2
Dry 1

Michigan Fields

Summary of Field Operations

	Comp.	Prod.	Dry	Rigs	Drg.	Ttl.
Muskegon	1	0	1	4	7	11
Isabella	2	110	0	0	12	12
Clare	0	0	0	3	0	3
Midland	16	4,915	0	17	20	37
Oceana	1	75	0	2	10	12
Lake	0	0	0	0	2	2
Iosco	0	0	0	1	0	1
Gratiot	1	0	1	1	1	2
Cass	0	0	0	2	1	3
Kent	0	0	0	1	2	3
Emmett	0	0	0	0	1	1
Leelanau	0	0	0	1	0	1
Saginaw	1	0	1	1	0	1
Montmorency	0	0	0	3	0	3
Sanilac	0	0	0	3	0	3
Newyago	0	0	0	0	2	2
Shiawassee	0	0	0	1	3	4
Allegan	0	0	0	0	3	3
Livingston	0	0	0	1	2	3
Oscola	0	0	0	1	0	1
St. Clair	0	0	0	1	0	1
Alpena	0	0	0	1	0	1
Cheboygan	0	0	0	0	1	1
Oakland	0	0	0	0	1	1
Macomb	0	0	0	0	1	1
Genessee	0	0	0	1	0	1
Macosta	0	0	0	1	0	1
St. Joe	0	0	0	1	0	1
Ogemaw	0	0	0	0	2	2
Total May	22	5,100	3	47	71	118
Total April	24	9,825	8	42	75	117
Difference	2	4,725	5	5	4	1

WELLS COMPLETED
MUSKEGON COUNTY
Blue Lake—W. C. Cotes, Old Dutch Oil & Gas 1 ..... dry
ISABELLA COUNTY
Denver—F. A. Trout & Co., T. K. Buzzard 1 10
Vernon—Marcillers, Mammoth Pet. Corp. 1 100
Wells completed 2
Production 110
MIDLAND COUNTY
Greendale—Emma O. Reed, Pure Oil 6 65
D. E. Harrison, Pure Oil 3 75
Harry Bond, Pure Oil 1 160
State Michigan, Talbot Oil 5-C 309
Porter—P. O. Mates, Pure Oil 2 1300
P. O. Mates, Pure Oil 3 60
P. E. Baxter, Gordon & Teaters 1 .. 50
J. B. Richmond, Stork Oil 1 150
Eli Bushree, Smith Pet. 1 1030
Jos. Otway, C. Fred White 1 250
Jos. Otway, Goll, Graves & Meckling 1 250
J. Richmond, Edward Stewart & Co. 1 430
J. Richmond, Edward Stewart & Co. 2 100
Muscott & Co., Gordon Oil 1 180
Joe Otway, C. W. Teaters 1 115
Jasper—Martha Clark heirs, Pure Oil 1. 400
Wells completed 16
Production 4915
OCEANA COUNTY
Hart—E. Mitchell, Flanigan & Voorheis 1 75
GRATIOT COUNTY
Elba—Mrs. Bell Cook, Ralph Melhorn 1 dry
SAGINAW COUNTY
Birch Run—Chas. H. Wiltse, Smith Pet. Co. 1 ..... dry

Gulf Coast Fields

(Continued from Page 49)

tect the surface formations and another string of approximately 1,200 feet to shut off the water sands to that depth. As only one well has been completed, the hearing was not concerned with production restrictions.

The spacing regulations are desired in view of the intensive drilling program beng launched by some operators in which locations have been planned on a basis of one well to 5 acres. Twenty-five acres is being specified as the unit instead of 20 acres because 25-acre tracts are the smallest in the district. The land was once a part of a large ranch and in the subdivision the owners specified there should be no tracts smaller than 25 acres.

Regulations requiring two strings of surface casing are being sought as a precaution against what happened at Conroe, when following a bad blowout there the high-pressure gas found its way through the shallow surface sands to points of weakness and then escaped to the surface, resulting in numerous blowouts, the cratering of several wells, and a hazard in drilling the surface formations.

A short time before the Corpus Christi hearing the Greta Field experienced its first blowout, W. L. Pearson's No. 1 Wilson Heard, which in the 2,200-foot sand broke loose, cratered, swallowing the rig and derrick, and caught fire. The well since has about killed itself, although still showing considerable gas pressure. A second well, Greta Oil Corp.'s No. 2 O'Brien, blew out the past week, but in blowing through the 10-inch surface pipe cemented at 898 feet.

The field is directly on the Houston-Refugio paved highway and the Missouri Pacific right of way, which makes the blowout hazard of greater concern than in most other fields. There are numerous shallow sands and porous horizon through which the gas easily could migrate from one part of the field to another.

Oklahoma Fields

(Continued from Page 47)

Standback, NW cor. SE Section 18-8-7, is a location. Gypsy Oil Co.'s No. 1 Holsley, NE cor. NW NE Section 19-9-6, made 670 bbls. from 4,239-57 feet.

Tulsa County

R. T. Kistler's No. 1 Carr, NW cor. SW NE Section 23-18-14, was spudding. Boyd and others' No. 7 Horn, NE cor. SE NW Section 23-18-14, made 80 bbls. from 1,356-62 feet. J. Stein's No. 1 Haikey, C S L SW SE Section 32-18-14, was abandoned at 1,587 feet. Bryan Petroleum Co.'s No. 1 Clinton, NE cor. SW SW NW Section 26-17-14, was abandoned at 1,933 feet.

Wagoner County

L. B. Jackson's No. 1 Derrisaw, C S L SW SE Section 24-18-15, was abandoned at 1,050 feet. Sheridan Oil Co.'s No. 1 Snake, C W L SE NW Section 26-18-15, made 50 bbls. from 1,022-70 feet. McIntire and others' No. 1 Lovett, SE cor. SW Section 35-18-15, made 25 bbls. from 1,053-98 feet. Smith and others' No. 2 Tucker, NE cor. SW SW Section 14-17-18, made 50 bbls. from 2,290-2,361 feet.

Texas Oil Taxation Held Unfair and Inequitable

AUSTIN, Tex., June 26.—Gov. Miriam A. Ferguson declared oil overtaxed in vetoing the bill placing pipe lines under the intangible asset tax law which sought to amend the Daniel bill, passed by the same session of the legisature and approved by the governor, levying a production tax as well as an intangible assets tax against oil pipe lines. The old production tax was 2 per cent of the market value of oil. The new bill makes the tax straight 2 cents per barrel, unless oil should sell for in excess of $1, when it would become 2 per cent of its value.

In her veto memorandum, the governor pointed out that "in order to get revenue" she had sent a special message to the legislature "submitting the question of a tax upon intangible values of all corporations not paying a gross production tax."

"But, for reasons best known to themselves, the legislature did not pass such a law, but did pass this law which I am vetoing, and only provided for a tax on intangible values of oil pipe lines," the governor wrote.

"All other corporations were exempted from the tax including even the gas pipe lines. Under the constitution taxes are supposed to be uniform and equal and no one business or industry should be taxed to the exclusion of other corporations doing business in different lines."

She said she believed the Daniel bill, which she approved, imposed "the highest tax rate ever levied by any administration on the oil business, yet I do not think that all the taxes should be levied on this industry and let other corporations go free."

"By the increased tax which we have placed upon the oil business in the Daniel bill, the oil industry will pay more than one-half of all the taxes levied by the state government," she said. "Therefore, if this bill were approved it would be so grossly unfair and inequitable that the courts would promptly declare it unconstitutional and we would lose the tax which will accrue under the Daniel bill . . ."

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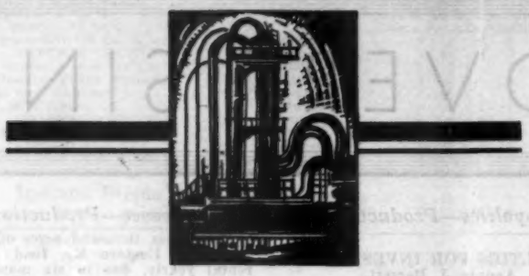

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